

AGRICULTURAL OUTLOOK

Economic Research Service
United States Department of Agriculture

May 1993

FILE COPY

Aquaculture Nets Growing Share
of Seafood Market

USDA's
Prospective Plantings
Report

AGRICULTURAL OUTLOOK



Cover photo:
Harvesting channel catfish,
Greenville, Mississippi

Departments

- | | |
|---|---|
| 2 Agricultural Economy
A First Look at 1993 Crop Plantings | <i>Joy Harwood</i> |
| 18 Commodity Spotlight
Aquaculture: Lower Costs, Long-Term Growth | <i>Dave Harvey & Greg Gajewski</i> |
| 22 World Agriculture & Trade
Agribusiness Spans National Borders | <i>Chris Bolling</i> |
| 27 Farm Finance
Will Farm Interest Rates Change Course? | <i>Ted Covey & Paul Sundell</i> |
| 29 Environment & Resources
Impacts of Delaney Clause Court Ruling | <i>Fred Kuchler & Katherine Ralston</i> |

Special Article

- | | |
|--|-------------------------|
| 34 Produce Marketing & Distribution In Mexico | <i>Constanza Valdes</i> |
|--|-------------------------|

Statistical Indicators

- | | |
|--|---|
| 38 Summary | 52 World Agriculture |
| 39 U.S. & Foreign Economic Data | 53 U.S. Agricultural Trade |
| 40 Farm Prices | 56 Farm Income |
| 41 Producer & Consumer Prices | 60 Food Expenditures |
| 43 Farm-Retail Price Spreads | 60 Transportation |
| 44 Livestock & Products | 61 Indicators of Farm Productivity |
| 48 Crops & Products | 62 Food Supply & Use |

Economics Editor—Cathy Greene (202) 219-0313

Associate Editor—Robert Dismukes (202) 219-0313

Managing Editor—Mary Reardon (202) 219-0494

Overview Coordinators—Richard Stillman, Agnes Perez, Livestock:
Joy Harwood, Carol Whitton, Field Crops: Glenn Zepp, Specialty Crops

Statistical Coordinator—Ann Duncan (202) 219-0313

Design & Layout Coordinator—Victor Phillips, Jr.

Editorial Staff—Karen Sayre

Tabular Composition—Joyce Bailey, Celia Peterson

The contents of this magazine have been approved by the World Agricultural Outlook Board and the summary released April 19, 1993. Price and quantity forecasts for crops are based on the April 12 World Agricultural Supply and Demand Estimates.

Materials may be reprinted without permission. *Agricultural Outlook* is printed monthly except for the January-February combined issue.

Annual subscription: \$35 (\$43.75 for foreign addresses, including Canada). Order from ERS-NASS, 341 Victory Drive, Herndon, VA 22070. Or call toll free, 1-800-999-6779 (U.S. and Canada only). All other areas, please call (703) 834-0125. Make check payable to ERS-NASS.

Time to renew? Your subscription to *Agricultural Outlook* expires in the month and year shown on the top line of your address label. Renew by calling 1-800-999-6779.

The next issue of *Agricultural Outlook* (AO-197) is scheduled for mailing on June 4, 1993. If you do not receive AO-197 by June 24, call the managing editor at (202) 219-0494 (be sure to have your mailing label handy). The full text of AO-197 will also be distributed electronically; additional information on this is available at (202) 720-5505.

News of Planting Intentions, Delaney Pesticides Ruling, Aquaculture, and Mexico's Produce Markets

Agricultural Economy

Crop acreage to decline: The news highlight in USDA's *Prospective Plantings* report, released on March 31, is that acreage for several top program crops and oilseeds will likely be down in 1993.

Farmers anticipate planting 256 million acres of the seven program crops as well as three oilseeds (soybeans, sunflowers, and flax) in 1993, down 4.5 million acres from last year's planted area. Coarse grains are expected down 5 percent from last year, corn may fall 4 percent, rice may drop 2 percent, and wheat and soybeans will remain unchanged.

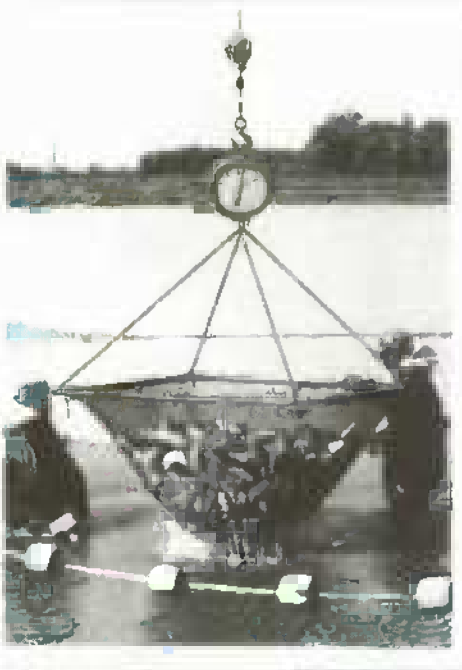
Why aren't planting intentions higher in 1993? Prices are likely a key factor. For most field crops, prices in 1993 have been well below 1992 levels. In February 1993, for example, farm prices of program crops and oilseeds were off about 15 percent from a year earlier.

Commodity Spotlight

Catfish cools: After 17 years of nonstop growth, the U.S. catfish industry is taking a breather in 1993. While catfish farming—the cornerstone of the U.S. aquaculture industry—anticipates less output this year, growth is expected for other species of farm-raised fish and shellfish.

Farm-raised trout production is poised to rise substantially this year as California, a big producer, regains adequate water supplies. Tilapia—now popular in restaurants and in Asian-community niche markets—is also set for a substantial increase, as new facilities come on line and others expand. Salmon, with farm value now greater than that of food-size trout, will increase modestly.

U.S. production of farm-raised shrimp has grown in recent years, but is small compared with domestic wild-catch shrimp. However, shrimp farming in China, Thailand, and Indonesia has been expanding enormously. And scientists



and growers in the U.S. are examining the development of disease-free stocks to supply growers around the world.

World Trade & Investment

Agribusiness goes global: Food Lion and Pillsbury are familiar giants among foreign-owned companies in the U.S. Small and large, foreign-owned agribusiness firms are expanding, from ranches and vineyards to supermarkets and restaurants, but especially food processing. Foreign investment in U.S. agribusiness accelerated in the late 1980's and reached nearly \$39 billion in 1991. That figure was topped by reciprocal U.S. agribusiness investment abroad of almost \$46 billion.

Foreign investment by international agribusiness firms has grown much faster than trade in agricultural products, as companies seek to increase sales of their products in foreign markets. Europe began investing heavily in U.S. agribusiness in the late 1980's, while the U.S. stepped up investments in Canada and Mexico as well as in Europe. Changing

world economic conditions are slowing the rate of foreign agribusiness investment in the U.S. in the early 1990's.

Environment & Resources

Pesticide ruling: Now that the Supreme Court has ruled on the Delaney Clause—a law restricting food-crop use of carcinogenic pesticides that concentrate during processing—how does the result shake out for farmers? The February ruling, which confirmed that not even a minute trace of residue of these pesticides is allowed, could affect 32 pesticides used in agriculture.

Delaney Clause chemicals are registered for use on a wide variety of fruit, vegetable, specialty, and field crops. Many of these crops do not rely heavily on Delaney chemicals for production. But for those that do, the markets could be seriously affected by this decision.

Hops and Eastern apples are two crops that could be seriously affected by the Delaney ruling. The economic effects on some crops—grapes, citrus, barley, mint, oats, plums, and potatoes—are uncertain.

World Agriculture

Mexico Moderne: Mexico's rising incomes and increasingly urban population are boosting demand for fruits and vegetables, including imports from the U.S. Recent government efforts to improve marketing and distribution include a streamlined system of price reporting, and the construction of modern wholesale markets for produce distribution.

Mexico City's Central de Abastos, one of the largest wholesale markets in the world and stretching over 1,000 acres, was one of the first modern markets built or redesigned in Mexico during the last 10 years. These markets are providing more efficient outlets for Mexican growers, as well as greater access for U.S. produce exports and investment.

Agricultural Economy



A First Look at 1993 Crop Plantings

U.S. farmers intend to plant more cotton, oats, sunflowers, and flax in 1993 than last year, while plantings of corn, sorghum, and barley are expected to drop, according to USDA's *Prospective Plantings* report. Soybean and all wheat plantings are expected to be about the same as last year, with a decline in durum wheat plantings expected nearly to offset gains in winter and "other spring" wheat acreage.

Released March 31, the *Prospective Plantings* report is USDA's first survey-based indication of farmers' 1993 intentions for spring-planted crops, and revises an earlier estimate of this year's winter wheat plantings. The report reflects producers' intentions as of the first 2 weeks in March, and is based on a survey of 70,000 operators chosen from a list that ensures all farming operations have a chance of being selected.

Wheat ARP Lower, Corn & Rice Higher

What influences producers' planting intentions? The relative returns a producer can expect from planting alternative crops is an important factor. Along with market returns, program announcements—including acreage reduction program (ARP) levels, and estimated deficiency payment rates—are critical factors in a program-crop producer's calculation of net returns, and hence have a critical influence on program participation and plantings.

More specifically, the acreage reduction levels specified in the annual commodity programs can have a major effect on the acreage planted to program crops. An ARP level is set for each program crop (wheat, corn, sorghum, barley, oats, rice, and cotton), and is the percent of a producer's acreage base for that crop that must be set aside in a conserving use for the producer to be eligible for program benefits. A higher ARP can significantly reduce planted area, or a lower ARP increase it, particularly if program participation is high.

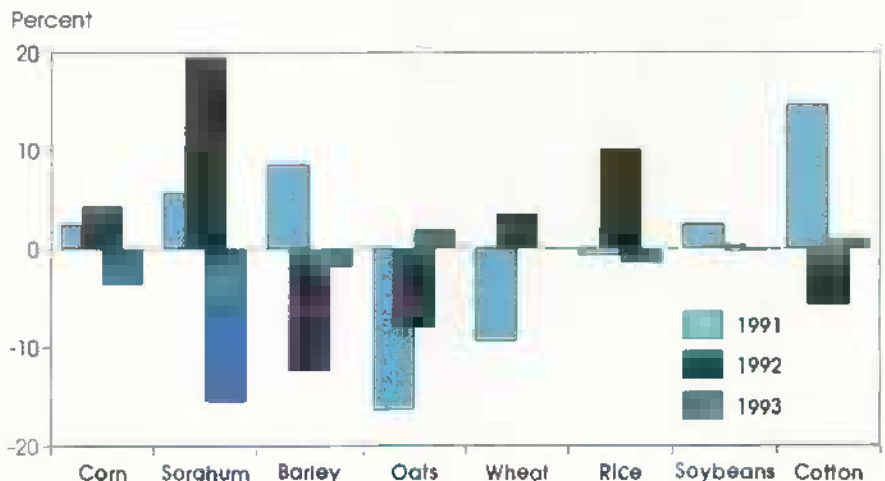
For program participants, net returns per acre since 1986 (based on market prices

and government payments) have generally averaged well above net returns realized by nonparticipants (based only on market prices). For wheat and corn participants, net returns nationally have averaged about \$30 per acre above nonparticipant returns over the past 3 years. As a result, participation in the corn program has ranged from about 75 to 80 percent of base acres, and for wheat, between 80 and 85 percent.

ARP levels are set by the government to balance supply and demand. Last June when the 1993 wheat ARP was announced, for example, relatively tight ending stocks of wheat were projected for the 1992 crop, prompting USDA to announce a 0-percent wheat ARP for 1993, down from 5 percent the previous year. The lower ARP increased the area available to be planted to wheat, and was expected to prompt larger plantings and supplies. However, a number of factors, including unfavorable weather at winter wheat planting time last fall, will apparently result in plantings for the 1993 crop only about equal to last year. Lower ARP's were also announced for barley and cotton.

Conversely, larger 1992 corn and rice supplies have led to higher ARP's in 1993, with the corn ARP raised from

Farmers Plan Less Acreage for Corn and Sorghum in 1993



Percent change in planted acreage from previous year. 1993 intended acreage. No change in wheat acreage in 1993.

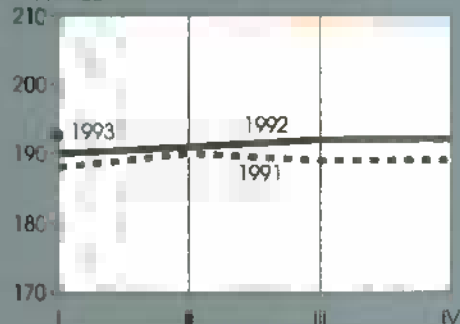
Source: *Prospective Plantings*, released March 31, 1993.

Prime Indicators

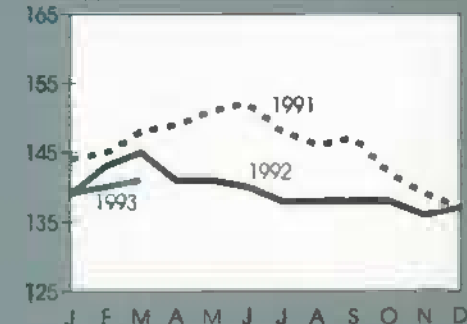
Agricultural Economy

Index of prices paid by farmers¹

1977=100

Index of prices received by farmers¹

1977=100

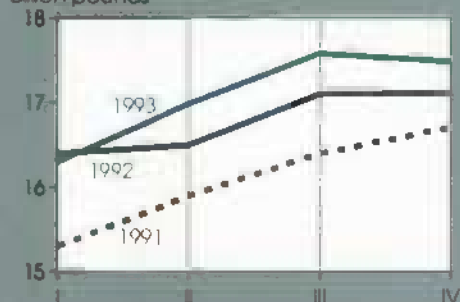


Ratio of prices received/prices paid

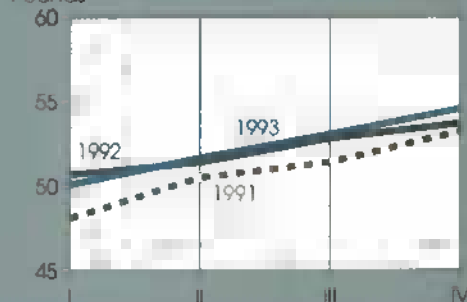
Percent

Total red meat & poultry production²

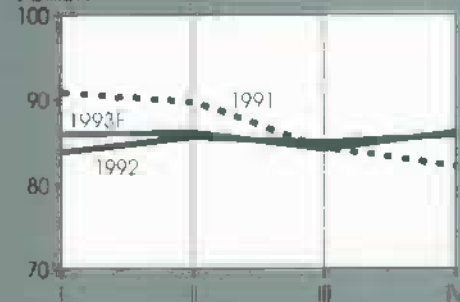
Billion pounds

Red meat & poultry consumption, per capita^{2,3}

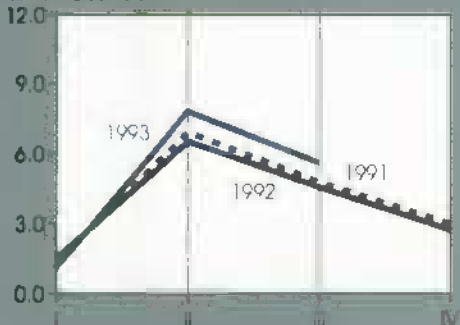
Pounds

Cash receipts from livestock & products⁴

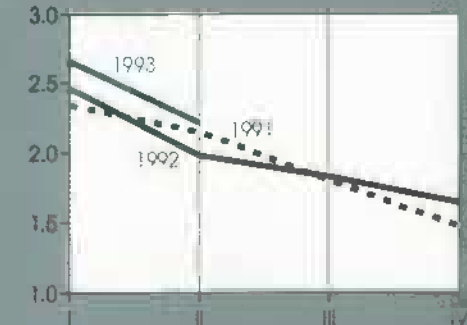
\$ billion

Corn beginning stocks⁵

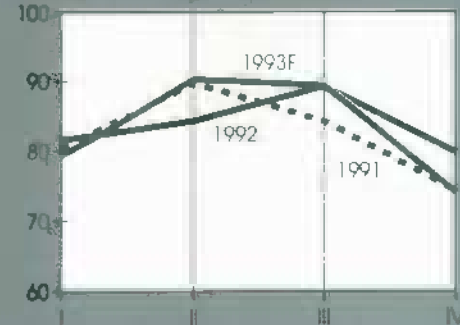
Billion bushels

Corn disappearance⁵

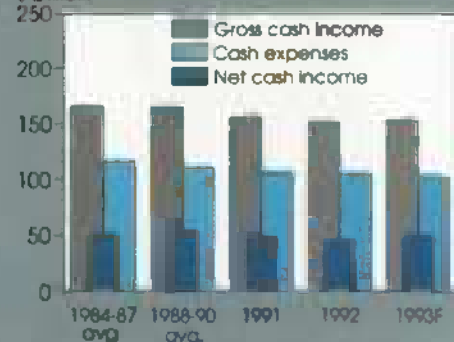
Billion bushels

Cash receipts from crops⁴

\$ billion

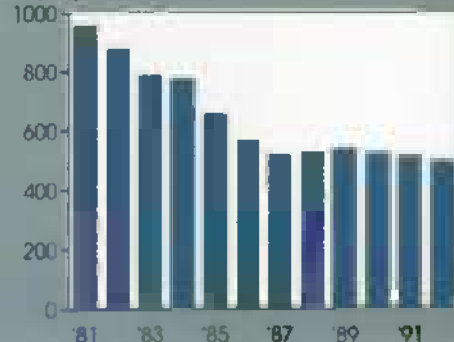
Real cash income (1987 \$)⁶

\$ billion



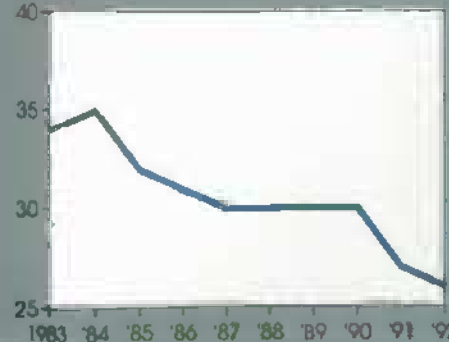
Average real value of farm real estate

1982 \$/acre



Farm value/retail food costs

Percent

¹For all farm products. ²Calendar quarters. Future quarters are forecasts for livestock, corn, and cash receipts.³I=Sept.-Nov.; II=Dec.-Feb.; III=Mar.-May; IV=June-Aug. Marketing years ending with year indicated.⁴Cash expenses plus net farm income divided by gross cash income. ⁵Forecast.⁶Retail weight. ⁷Seasonally adjusted annual rate.

Agricultural Economy

5 to 10 percent, and the rice ARP from 0 to 5 percent. The sorghum ARP remains at 5 percent, and the oats ARP is mandated by the 1990 farm act to remain at 0 percent.

Market Returns Critical On Flex Acres

As seen above, anticipated total returns, based on expected market prices and government payments, are key to farmers' decisions as to whether or not to participate in the annual commodity programs. On program "normal flex" acres, market returns, by themselves, are the key factor.

For program participants, "normal flex" acres comprise 15 percent of a producer's base of a program crop, and may be planted to any crop except those not allowed in a given year by the Secretary of Agriculture. These acres are eligible for price support coverage, if applicable, but are not eligible to receive deficiency payments. Because crops planted on flex acres are not eligible for payments, and market prices have been above loan levels, flex-acre plantings are strongly influenced by expected relative crop prices and net returns.

Many participants in the corn program look at the ratio of soybean to corn prices in deciding which crop to plant on their corn flex acres. Because producers were surveyed for the *Prospective Plantings* report in early March, futures prices for November soybeans and December corn, as settled in February and early March, were likely critical in influencing the planting intentions reported by many producers.

Using this method, the price ratio of new-crop soybeans to corn does not indicate that one crop is strongly favored over the other. The ratio, using February and early-March observations, is between 2.4 and 2.5. Based on relative yields and production costs for the two crops, the 2.5 level is often considered a "trigger point." Above that level, soybeans are increasingly favored, while below, corn is viewed as increasingly more profitable.

Prospective 1993 Soybean and Wheat Acreage Match 1992 Level, But Corn Acreage Is Down

	Planted acreage		
	Intended 1993	1992	Actual 1975-92 average
Million acres			
Corn			
Iowa	12.6	13.2	12.9
Illinois	10.6	11.2	10.9
Nebraska	8.2	8.3	7.3
Minnesota	6.8	7.2	6.6
Indiana	5.9	6.1	5.9
All states	76.5	79.3	77.6
Soybeans			
Illinois	9.4	9.5	9.0
Iowa	8.5	8.3	8.0
Minnesota	5.5	5.5	4.7
Indiana	4.7	4.6	4.3
Missouri	4.3	4.3	5.0
All states	59.3	59.3	62.1
Wheat			
Kansas	11.8	12.0	12.4
North Dakota	11.8	11.6	10.2
Oklahoma	7.3	7.4	7.5
Texas	6.1	5.9	6.9
Montana	5.5	5.4	5.4
All states	72.3	72.3	75.2
Major producing states			

Major producing states

Another way of looking at the profitability of planting alternative crops is through expected net returns. An examination of net returns indicates that soybean returns, based on new-crop futures prices, are slightly more favorable than corn net returns. For instance, a hypothetical Corn Belt producer could expect to receive net returns of \$170 per acre for soybeans and about \$150 for corn on corn flex acres.

Some producers rely on current farm prices as a guide to planting decisions. Farm prices for soybeans in January and February 1993 were at about the same level as a year ago—while corn prices at the farm level were down about 20 percent. Using this method, the soybean-to-corn price ratio is about 2.8, strongly favoring soybeans.

Based on these factors, many analysts expected a shift into soybean plantings on flex acres in the major production areas, and away from corn.

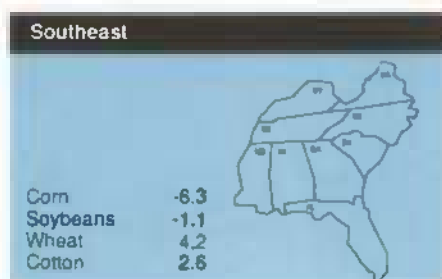
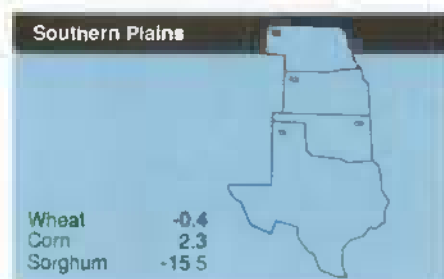
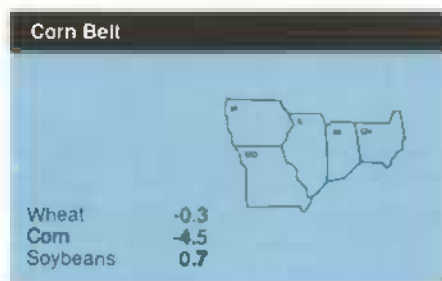
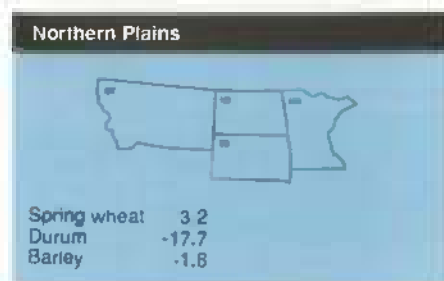
Regional Factors Vary For Corn & Soybeans . . .

Given the above considerations, intended soybean plantings are lower than many analysts expected. Based on the *Prospective Plantings* report, U.S. farmers indicated that they will plant 59.3 million acres of soybeans, about the same level as last year, and 76.5 million acres of corn, down 4 percent from 1992.

Regional influences are important in explaining the national results. In the Corn Belt, farmers intend to plant 5 percent less acreage to corn than in 1992, which would be in line with the higher ARP. Soybean area, however, is up only 1 percent and somewhat less than anticipated.

A review of last year helps clarify this situation. In some areas of the Corn Belt in 1992, corn plantings were pushed past their optimal time, as rains and cool weather delayed fieldwork, and many producers, particularly in fringe Corn Belt areas, planted more soybeans than

Durum Plantings To Decline in the Northern Plains



Percent change in 1993 intended planted acreage from 1992 actual, for major crops.
Source: *Prospective Plantings*, released March 31, 1993.

expected. Nearly all Corn Belt states reported higher actual soybean area in 1992 than indicated in the 1992 *Prospective Plantings* report.

And for 1993, intended soybean plantings in the Corn Belt are high by historical standards. Illinois is expected to plant its third-largest soybean area on record, and Iowa planted area is expected to match its second highest on record.

In the Southern Plains, a different pattern emerges. Farmers intend to increase their corn plantings by about 2 percent, despite the higher ARP. For program purposes, permitted acres of corn and sorghum are combined when the producer participates for both crops. This means that a producer with corn and sorghum base can increase corn plantings on sorghum base—and still remain within the farm's permitted acreage.

Given that sorghum prices have been weak relative to corn in recent months, expanding corn plantings on sorghum base appears to be an attractive alternative, particularly if a producer irrigates. Deficiency payments accrue as if corn were planted on corn base and sorghum

were planted on sorghum base; planting history credit for determining future crop acreage bases also accrues. Soybean plantings are also up in the Southern Plains.

In the Southeast, both corn and soybean area are expected down or flat in nearly all states. Many growers are likely to plant other crops or to idle acres because of returns that, particularly for soybeans, have been only marginally profitable over the past few years.

For Southeastern producers, expected soybean prices often need to be at least \$6.50 per bushel to make planting attractive. This is largely because soybean yields in that area are generally lower than in the Corn Belt. In January and February of 1993, farm prices ranged from \$5.15 to \$5.70 across much of the Southeast. Based on January forecasts published in *Agricultural Prices*, season-average prices for that region in the 1992/93 crop year are expected to average between \$5.45 and \$5.70.

... & for Wheat

Total wheat planted area in 1993, at 72.3 million acres, is expected to be up only marginally from last year, despite a lower ARP. As with corn and soybeans, regional variations in plantings—based on relative prices and weather—are important considerations.

Winter wheat area for 1993, which was seeded last fall, is expected to remain virtually the same as last year, at 51.2 million acres. Among the major winter-wheat producing states, planted area is estimated down in Kansas, Oklahoma, Indiana, and Ohio, largely because of unfavorable planting conditions last fall. In contrast, in the Pacific Northwest (Washington, Oregon, Idaho), where price premiums for white wheat last fall provided a strong planting incentive, winter wheat area is expected to be up 7 percent.

Producers indicated that spring wheat area (except for durum) will be more than 18.9 million acres, up about 1 percent from 1992. This would be the largest seeded area since 1953, and North Dakota acreage could reach a record high. U.S. average premiums for hard red spring wheat—about 25 to 35 cents above durum in January and February—have boosted planting intentions to spring wheat other than durum.

The relative attractiveness of spring wheat is contributing to a decline in projected durum acreage, which at 2.1 million acres would be down 17 percent from 1992. This would be the smallest durum area since 1963. Durum plantings in North Dakota—the major producing state—are expected down 16 percent.

Programs & Prices Influence Other Crops

A combination of influences, including ARP changes and relative prices, is at work for other crops. For sorghum, planted area is expected to total 11.2 million acres, down nearly 16 percent from last year, despite a constant ARP of 5 percent.

Agricultural Economy

Much of the decline is due to lower sorghum area in Texas—the major producing state—where a drop of 1.45 million acres from 1992 is projected. Texas sorghum area is expected to return to a lower, more “normal” pattern after 1992, when sorghum area was far higher than initially expected due to plantings on failed cotton acreage. Increased corn planting on sorghum base is also likely a factor in Texas.

Elsewhere, sorghum farmers face different considerations. Stronger livestock numbers are likely encouraging plantings of feed grains, which in many areas means sorghum. As a result, producers in Kansas and Oklahoma are expected to hold steady or increase their sorghum acres. In the Southeast, however, declines in sorghum area are expected in many states where cotton and wheat may be more attractive.

Producers are expected to plant 13.4 million acres of cotton in 1993, up from 13.3 million last year. A large portion of the increase is due to additional upland plantings in Texas, but cotton area is also expected to increase in Louisiana, Alabama, Georgia, North Carolina, South Carolina, and Virginia. This rise is partly due to the lower ARP (at 7.5 percent, down from 10 percent in 1992), and expected strong domestic demand for cotton.

Rice plantings are expected to total 3.1 million acres, down 2 percent from 1992. A higher rice ARP (up from 0 to 5 percent), and farm prices that are more than 20 percent below last year's January-February period, are major factors in the decline. Nonetheless, growers in Arkansas, the largest rice producing state, indicated that acreage would be unchanged. In addition, improved water supplies are expected to boost acreage in California by 12 percent.

Sunflower and flax plantings are expected to realize sizable percentage gains in 1993. Sunflower area at nearly 2.5 million acres, is expected up 12 percent, with higher prices in recent months likely fueling the rise. Flax area, at 211,00 acres, although expected up 23 percent, would still be the third lowest on record if realized. Higher flax prices,

along with high yields last year, are likely prompting the acreage increase.

Acreage planted to barley is projected at 7.7 million acres, down about 2 percent from last year, despite the ARP reduction from 5 to 0 percent. Of the major producing states, acreage is expected up 4 percent in North Dakota, but down substantially in Montana and South Dakota. Spring wheat plantings in the Northern Plains, in general, appear to offer potential for considerably higher net returns.

Oats plantings, at 8.1 million acres, are expected up about 2 percent in 1993, although area harvested is anticipated down 2 percent. A sizable portion of oats plantings serves as a cover crop on ARP acres, particularly in the Corn Belt, and is not harvested. With the higher

corn ARP in 1993, oats plantings in major Corn Belt states are expected to increase 5 to 40 percent, varying by state. Lower expected plantings in South Dakota, Wisconsin, and several other states are holding down the increase in area planted nationally.

Why Isn't Total Acreage Higher?

Intended planting area for all seven program crops as well as oilseeds (soybeans, sunflower, and flax) in 1993 totals 256 million acres, down 4.5 million from last year's actual planted area.

Based on ARP changes alone, planted area would be expected about a half million acres higher than last year. That is,

More News in May & June

The *Prospective Plantings* report is only the first indication of field crop plantings, based on intentions surveyed in early March. Changes in weather conditions and relative prices between early March, when operators were surveyed, and planting time, can alter producers' initial intentions, significantly influencing actual planted acreages.

For 1993 crops, more information on planted acreages will be published in USDA's *Acreage* report, which is scheduled for release on June 30. That report will be based on surveys conducted in early June, when most crop acreages will have been established.

The *Acreage* report will provide the next estimates for all crops except winter wheat. Forecasts of winter wheat area and production, along with the first production forecasts for all field crops for 1993/94, will appear in the May 11, 1993 issues of USDA's *Crop Production* and *World Agricultural Supply and Demand Estimates*.

	Actual plantings as percent change from intended acreage		
	1990	1991	1992
Corn	-0.8	-0.2	+0.4
Sorghum	-8.0	-0.7	+9.6
Barley	-7.5	+2.7	-6.1
Oats	-5.2	-9.1	-4.5
Wheat	-0.4	+1.3	+3.1
Rice	-0.2	+2.3	+6.0
Cotton	-0.3	+0.4	-1.5
Soybeans	-2.7	+3.6	+3.3
Total acres	-1.8	+0.9	+1.9

assuming participation rates, base acres, 0/92-50/92 acres, and all parameters other than the ARP remained the same as last year, intended area planted to the seven program crops could be expected to increase by about a half million acres. Wheat area would be expected to be up 3.3 million acres, and corn area down about 3.2 million. Changes for barley, cotton, and oats together would be expected to add 400,000 acres.

Why aren't planting intentions higher in 1993? Greater participation in the 0/92 and 50/92 programs could be a factor. Farmers may be planning to double-crop less acreage—particularly of wheat and soybeans.

Prices are perhaps most important. For most field crops, prices in 1993 have been well below 1992 levels. Farm prices for the program crops and oilseeds, for instance, weighted by 1992 production, were off about 15 percent in February 1993 from a year earlier. Given the lower prices, some farmers may believe that planting, especially on their normal flex acres which are not eligible to receive deficiency payments, will not be profitable. Last year nearly 4.5 million normal flex acres were idled and not planted.

[Joy Harwood (202) 219-0840] **AO**

Field Crops Overview

Domestic Outlook—April Projections for 1992/93

1993 Wheat Area Up Only Slightly

Farmers anticipate planting 72.3 million acres of all classes of wheat in 1993, according to USDA's *Prospective Plantings* report. Prospective 1993 wheat acreage is barely more than last year's planted acreage, despite the lower 1993 ARP (0 percent compared with 5 percent last year). While weather problems and other factors are limiting total wheat acreage expected in 1993, increases are anticipated in some regions and for some wheat classes.

- Estimated winter wheat area is 51.2 million acres, up slightly from last year. Less winter wheat area is expected in Kansas, Oklahoma, Indiana, and Ohio due to wet weather during planting, while 7 percent more is projected in the Pacific Northwest because of strong prices for white wheat. More soft red winter wheat area in the Southeast is also expected this year.
- Producers expect to plant 19 million acres of spring wheat (excluding durum), up just 1 percent from last year, but still potentially the largest acreage since 1953. Higher expected returns for hard red spring wheat than for durum and barley is the main reason for this increase.
- In contrast, durum area is expected to drop 17 percent from last year, to 2.1 million acres, potentially the smallest area since 1963.

While spring wheat producers are planting in April and May, winter wheat producers are looking toward harvest, which will be in full swing in June. Across the U.S., the winter wheat crop is rated in generally good condition. With stocks still tight, prices are expected higher than last year.

- Most of the winter wheat crop was reported in good condition as of April 18, and over 40 percent of California, Kansas, and Oregon winter wheat was rated excellent. Heading was at 3 percent, slightly behind the 5-year average of 6 percent.
- As of April 18, spring wheat planting had just started in the five major producing states, with 3 percent of the crop planted, compared with a 5-year average of 27 percent. Cool, moist weather delayed planting in many areas.
- Projected ending stocks of 520 million bushels for the 1992/93 crop year—which ends on May 31—are higher than last year's reduced level, but still the second lowest since 1974/75. With continued tight stocks, the season-average price is expected to range from \$3.20 to \$3.30 per bushel, up from \$3 in 1992.

Corn Area To Fall 4 Percent

Farmers expect to plant 76.5 million acres of corn in 1993, a 4-percent drop from last year's planted acreage. Much of the decline nationally is due to the higher ARP, which doubled from last year's 5-percent level to 10 percent.

- In the Corn Belt, corn area is expected to drop nearly 5 percent, in line with the higher ARP. Acreage in both top producing states, Iowa and Illinois, is expected down 600,000 acres.

Upcoming Reports from USDA's Economic Research Service

The following are May release dates for summaries of the ERS reports listed. Summaries are issued at 3 p.m. Eastern time.

May

- 13 *Agricultural Resources*
- 18 *Former USSR*
- 19 *Agricultural Outlook*
- 20 *Wheat*
- 24 *Feed*
- 26 *Cotton & Wool*
- 27 *Agricultural Exports*
- 28 *Agricultural Income & Finance*

Agricultural Economy

- Corn acreage in the Southeastern region is expected to drop about 6 percent, and is expected down or flat in all states in the region.
- In contrast, producers in the Southern Plains are planning about 2 percent more corn acreage. Good moisture conditions, the ability to switch plantings between corn and sorghum base, and strong livestock numbers are likely fueling the increase in that area.

Corn and sorghum planting was underway in early April in the southern growing areas (Texas across to the east coast), and will begin in the Midwest in early

May. The record 1992 corn crop is boosting projected corn disappearance and ending stocks for the 1992/93 crop year, and larger stocks are keeping prices down.

- As of April 18, corn planting was 2 percent complete for the U.S., behind the average of 7 percent. However, about 66 percent of the Georgia corn crop, and 49 percent of the Texas corn crop had been planted. Sorghum planting was 18 percent complete nationally, with about 47 percent of the Texas crop planted.

- Some states report still-unharvested corn from last year, due to cool temperatures that delayed maturity last summer, and wet conditions last fall. In Iowa and Wisconsin, 1 percent and 7 percent of 1992 crop acreage were still in the field in early April.
- With large supplies outweighing the increase in use, the 1992/93 season-average price is expected to range from \$1.95 to \$2.15 per bushel, down from \$2.37 in 1991/92.

Soybean Area Same as 1992

Soybean acreage in 1993, projected at 59.3 million acres, is virtually unchanged from 1992. Many analysts expected soybean area to be higher because soybean prices have been strong compared with corn prices in recent months.

- In the Corn Belt, soybean area is projected up about 1 percent. Plantings in Illinois, the largest acreage state, are expected down 100,000 acres, but area in Iowa is expected up 200,000 acres, and in Indiana up 100,000 acres.
- In contrast, southeastern producers expect to reduce soybean acreage about 1 percent. While southeastern producers often need to expect prices of \$6.50 or more per bushel to find soybeans attractive, prices in the area have recently been a dollar or more below that level.
- The near-record 1992 soybean crop is boosting projected disappearance and ending stocks for the 1992/93 crop year. Although the season-average price for 1992/93 is projected lower than the previous year, strong total disappearance—expected to reach a record this year—has boosted recent monthly-average prices.

U.S. Field Crops—Market Outlook at a Glance

	Area		Yield	Output	Total supply	Domestic use	Exports	Ending stocks	Farm price
	Planted	Harvested							
	— Mil acres —	— Bu/acre —							
Wheat									
1991/92	69.9	57.7	34.3	1,981	2,888	1,135	1,281	472	3.00
1992/93	72.3	62.4	39.4	2,459	2,999	1,153	1,325	520	3.20-3.30
Corn									
1991/92	76.0	68.8	108.6	7,475	9,018	6,332	1,584	1,100	2.37
1992/93	79.3	72.1	131.4	9,479	10,582	6,745	1,650	2,187	1.95-2.15
Sorghum									
1991/92	11.1	9.9	59.3	585	727	383	292	53	2.25
1992/93	13.3	12.2	72.8	884	937	508	275	155	1.80-2.00
Barley									
1991/92	8.9	8.4	55.2	464	624	401	84	129	2.10
1992/93	7.8	7.3	62.4	456	597	360	80	157	2.00-2.05
Oats									
1991/92	8.7	4.8	50.7	243	489	360	2	128	1.20
1992/93	8.0	4.5	65.8	295	472	355	5	112	1.30-1.35
Soybeans									
1991/92	59.2	58.0	34.2	1,987	2,319	1,356	685	278	5.58
1992/93	59.3	58.4	37.6	2,197	2,477	1,377	760	340	5.45-5.55
		Lb/acre	— — —	— — —	Mil. cwt (rough equiv.)	— — —	— — —	— — —	\$/cwt
Rice									
1991/92	2.88	2.78	5,674	157.5	187.3	93.7	66.4	27.3	7.58
1992/93	3.17	3.13	5,722	179.1	212.1	97.8	76.0	38.3	8.10-8.30
		Lb/acre	— — —	— — —	Mil. bales	— — —	— — —	— — —	¢/lb
Cotton									
1991/92	14.1	13.0	652	17.6	20.0	9.6	6.8	3.7	56.80
1992/93	13.3	11.2	697	16.2	19.9	9.9	5.8	4.3	53.60*

Based on April 12, 1993 World Agricultural Supply and Demand Estimates, U.S. marketing years for exports.

*Weighted-average price for August-November; not a season average.

See table 17 for complete definition of terms.

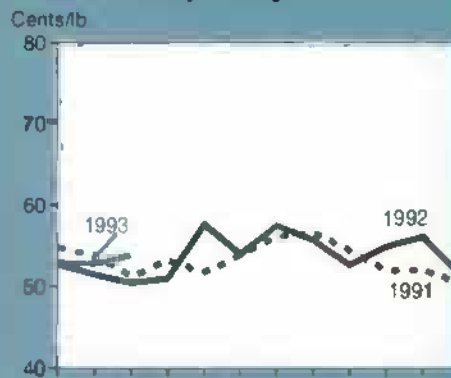
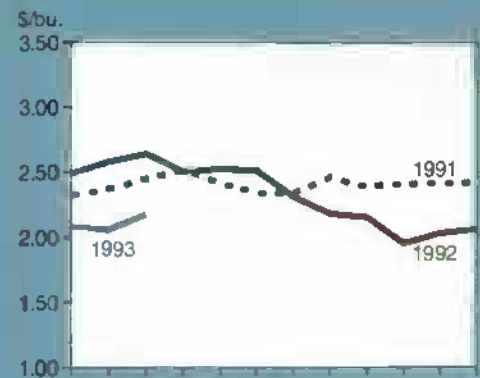
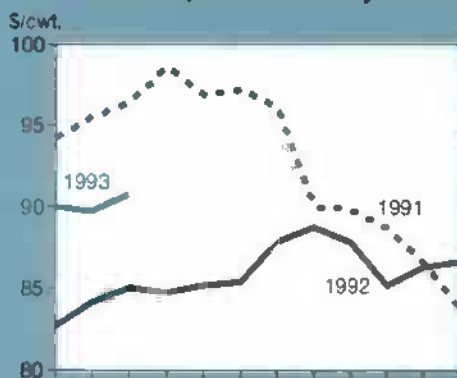
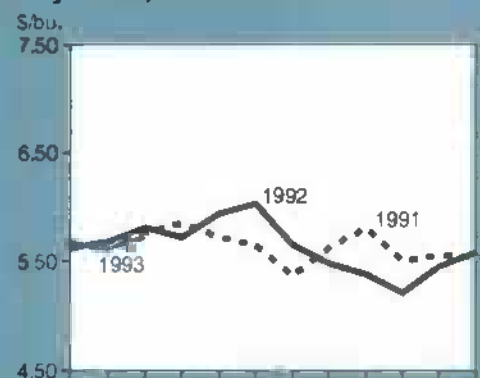
Commodity Market Prices

Agricultural Economy

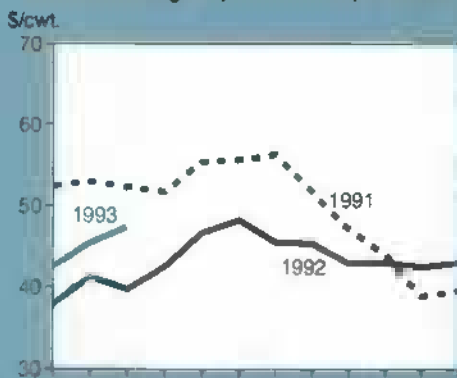
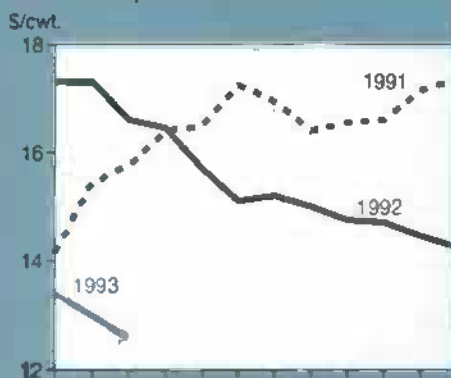
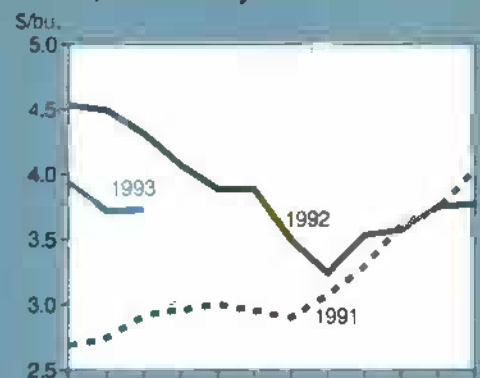
Choice steers, Nebraska



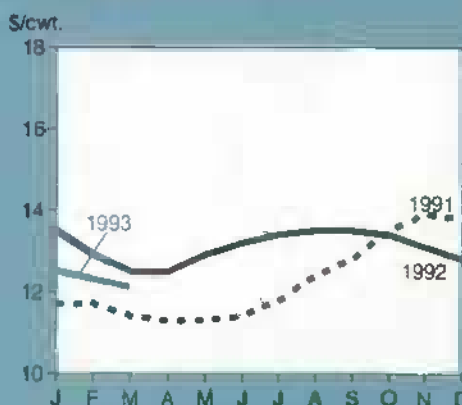
Broilers, 12-city average

Corn, Central Illinois¹Medium steers, Oklahoma City²Eggs, New York³Soybeans, Central Illinois⁴

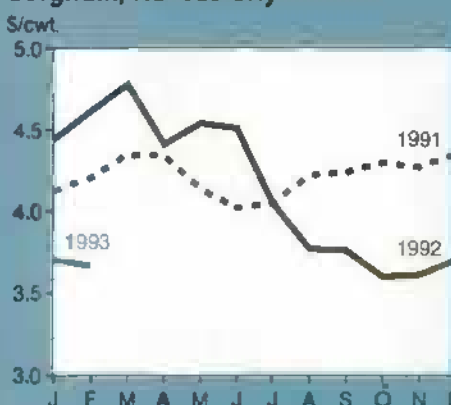
Barrows and gilts, 6 markets, Omaha

Milled rice, SW Louisiana⁵Wheat, Kansas City⁶

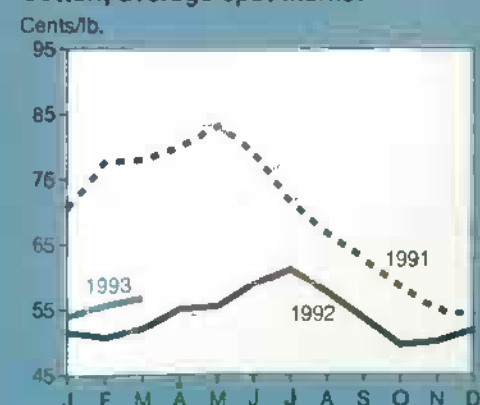
All Milk



Sorghum, Kansas City



Cotton, average spot market



¹No. 2 yellow. ²600-700 lbs. medium no.2 ³Grade A large ⁴No. 3 yellow. ⁵U.S. No. 2 long grain. ⁶No. 1 HRW.

Agricultural Economy

U.S. Announces Assistance to Russia

On April 4, President Clinton announced an aid package to assist the export of U.S. agricultural commodities to Russia through a concessional credit program and food aid donations. Most of this assistance, \$700 million in commodities and transportation, is through the Food for Progress Program, designed to help countries implement agricultural policy reform.

Under this assistance package for Russia, low-interest credit will be offered with a 15-year repayment period, which includes a grace period. The program will provide another \$194 million in food aid donations, which private voluntary organizations will help distribute.

Before such a program may proceed however, questions of funding for freight must be resolved. Shipping costs are expected to exceed the \$30-million cap under the program. Further, the commodities must be shipped on U.S.-flag vessels which are generally more expensive than foreign-flag fleets. The difference in costs means that expenditures for shipping as opposed to acquiring commodities is that much larger.

[Mark Smith (202) 219-0820]

Rice Area Down Nationally

U.S. rice producers anticipate planting 2 percent less acreage this year than in 1992. Key reasons for the drop include a higher ARP (up from 0 to 5 percent) and farm prices that are substantially lower than last year.

- Rice area is expected down in four of the six major producing states. Acreage is expected to drop 10 percent in Louisiana, 5 percent in Mississippi and Texas, and 2 percent in Missouri.

- Despite the higher ARP, rice area in Arkansas, the major producing state, is expected to remain at last year's level. California acreage is expected to increase, due to improved water supplies.

Rice planting is underway in the five major producing states. Planting progress has been slow, due to higher-than-normal rainfall in many areas. Large supplies of last year's crop are putting pressure on prices.

- Planting was about 13 percent complete nationally as of April 18, behind the average of 26 percent.
- In Louisiana, about 42 percent of the rice crop was planted as of April 18, compared with a 5-year average of 46 percent. In Texas, about 22 percent of the crop was planted as of April 18, compared with a 5-year average of 63 percent.
- The near-record 1992 rice crop, along with lower prices, is boosting projected disappearance for the 1992/93 crop year. Prices are expected in the range of \$6.10-\$6.30 per cwt, well below the \$7.58 estimated for 1991/92.

Texas Cotton Area Up 3 Percent

Cotton acreage in 1993 is expected to reach over 13.4 million acres, up 1 percent from last year. The increase is due mainly to expected strong domestic cotton demand and the lower ARP—7.5 percent, down from 10 percent from 1992.

- Higher upland cotton area in Texas accounts for much of the projected national increase in acreage. Plantings in Texas are projected at 5.7 million acres, up 3 percent from last year.

- Plantings are also expected higher in the Southeast, with an acreage increase of nearly 3 percent.

Cotton planting was underway in major growing areas in early April. Planting progress was slightly ahead of normal in Texas, but rain delayed fieldwork in Arizona and California.

- As of April 18, about 15 percent of the Texas crop had been planted, ahead of the 5-year average of 13 percent. Planting in California was 45 percent complete, compared with a 5-year average of 59 percent.
- Planting in Arizona was 38 percent complete, but far behind the 58-percent average.

[Joy Harwood (202) 219-0840]

Global Market: Outlook for 1992/93

U.S. Wheat Exports Forecast Up

Larger wheat output in the former Soviet Union (FSU) and China has dampened global import demand in 1992/93, despite gains in imports from Eastern Europe and North Africa. U.S. exports and market share are forecast up.

- FSU wheat imports are currently forecast at 16.5 million tons (July-June basis), down from 22 million in 1991/92. Because of lack of information on commodity allocations, shipping schedules, and the handling of freight costs, the forecast does not reflect the recently announced \$700 million of long-term U.S. credits for Russia. But other donations, sales, and credit packages announced over the past month by the U.S., Canada, the European Community (EC), and Turkey prompted an increase in the forecast.

Agricultural Economy

- U.S. exports, at 36 million tons, are forecast up nearly 3 percent from 1991/92, and market share is expected to rise to 36 percent from last year's 32 percent.

Winter Wheat Crops Faring Well

Winter weather through April has been favorable for winter wheat in the major producing countries of the Northern Hemisphere, although plantings are down from a year earlier.

- Above-normal moisture promoted good early-season growth in the FSU; however, winter grain area is down 10 to 12 percent. Recent rain slowed spring plantings originally intended to make up for shortfalls in the winter grain area.

- Drought continues in North Africa, but Eastern Europe appears poised to recover from the drought-reduced 1992/93 crop.

U.S. Coarse Grains Gain in World Trade

Despite a forecast 5-percent decline in world coarse grain trade in 1992/93, U.S. market share is expected to rise. This mainly reflects a drop in aggregate competitor exports, mostly because of lower production, along with a slight gain in the volume of U.S. shipments.

- U.S. export market share is anticipated to reach 58 percent, up from 54 percent the previous year, as U.S. exports reach 51.1 million tons.

- Declining exports are forecast for Canada, Eastern Europe, South Africa, and many smaller exporters such as Turkey and Finland.

- Increases in exports are expected for Argentina, Australia, and the EC. Most exports by Australia and the EC consist of barley, but unusually large shipments of rye and corn account for higher prospective EC shipments. Argentine corn exports are expected to be the highest since the mid-1980's.

- Exports by China are expected to fall from the 1991/92 record.

Large World Supplies Lower Rice Prices

Abundant global supplies combined with smaller world import demand in 1993 should continue to put downward pressure on prices into the summer months when further reports of the Asian monsoon become available. Normal monsoon rains would mean good harvests for 1993/94.

- Total foreign rice production is projected up 3 million tons to 346.1 million for 1992/93, while the U.S. crop is up by 650,000 to 5.7 million.
- USDA's calculated "world price" for milled long grain on April 5, 1993, is down about \$25 per metric ton from January 1 and represents the lowest announced price since September of 1987.
- Indonesia switches from importing 650,000 tons in 1992 to exporting 400,000 tons in 1993 on the strength of a larger area planted again for 1993/94.
- Lower U.S. export prices put the U.S. export forecast at 2.4 million tons for calendar 1993, up 14 percent.

World Soybean Output To Reach Record, Grain Trade Down In 1992/93

	Year ¹	Production	Exports ²	Consumption ³	Carryover
			Mil. tons		
Wheat	1991/92	543.6	109.1	560.6	126.7
	1992/93	558.4	99.3	551.3	133.7
Coarse grains	1991/92	797.4	93.5	803.7	129.8
	1992/93	848.4	88.9	821.8	156.4
Corn	1991/92	483.7	61.5	484.5	77.8
	1992/93	527.2	60.4	502.4	102.6
Rice	1991/92	348.1	14.9	352.7	55.4
	1992/93	351.8	14.3	354.0	53.2
Oilseeds	1991/92	223.7	36.9	185.4	21.5
	1992/93	226.3	38.8	185.4	22.8
Soybeans	1991/92	106.8	28.1	92.5	18.3
	1992/93	115.9	31.4	95.8	20.3
Soybean meal	1991/92	73.2	28.7	73.1	2.9
	1992/93	75.8	27.7	74.7	3.2
Soybean oil	1991/92	16.9	4.2	16.1	2.2
	1992/93	17.1	4.3	17.1	1.9
			Mil. bales		
Cotton	1991/92	96.0	22.4	85.0	40.6
	1992/93	83.4	22.2	84.9	38.8

¹ Marketing years are: wheat, July-June; coarse grains and corn, October-September; oilseeds, soybeans, meal, and oil, local marketing years except Brazil and Argentina adjusted to October-September; cotton, August-July. ² Rice trade is for the second calendar year. ³ Crush only for soybeans and oilseeds.

Agricultural Economy

World Soybean Output Record High for 1992/93

Boosted by large increases in Brazil, Argentina, Paraguay, India, and the U.S., global soybean and soybean meal production are each expected to be record high this season. While strong demand for soybeans in the EC, Mexico, and several Asian countries buoy expected U.S. bean exports, lower-than-anticipated FSU soybean meal imports limit U.S. meal export growth.

- World soybean production is projected to increase by 8.5 percent to 115.85 million tons.
- South American output is forecast to reach a record 34.8 million tons, helped by expected record crops in Argentina and Paraguay.
- Global soybean meal consumption is forecast to grow 2 percent to 74.7 million tons, despite a 41-percent drop in consumption in the FSU. EC crush is forecast at 14.5 million tons, the highest in 10 years.
- Forecast U.S. soybean exports are 20.7 million tons, up 2 million, while expected U.S. soybean meal exports are revised up to 5.8 million tons, still below last season's 6.2 million.

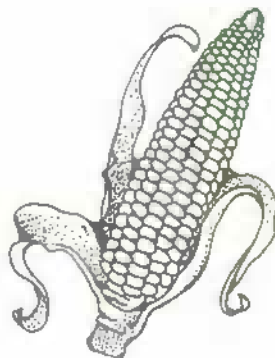
Foreign Cotton Demand Continues Weak

Foreign demand weakens further as cotton imports and consumption for South Korea, Taiwan, Thailand, and Germany contract. But anticipated use by exporters, including the U.S., remains strong, keeping global consumption stable. With import demand falling, U.S. export sales have been sluggish and orders canceled. Global production remains well below 1991/92, despite additional gains forecast for India.

- U.S. exports are expected to drop by another 300,000 bales to 5.8 million, 13 percent below 1991/92, and market share will likely slip further to 26 percent.
- World consumption is projected at 84.9 million bales compared with 85 million in 1991/92. But expected global production is 83.4 million bales, down from 96, a 13-percent decline.
- India's forecast output is 10.2 million bales, up more than three-quarters of a million from 1991/92.

[Carol Whitton (202) 219-0824]

For further information, contact: Sara Schwartz, world wheat; Randy Schnepf, world rice; Edward Allen, domestic wheat; Janet Livezey, domestic rice; Pete Riley, world feed grains; Tom Tice and Jim Cole, domestic feed grains; Nancy Morgan and Jaime Castaneda, world oilseeds; Scott Sanford and George Douvelis, domestic oilseeds; Ken Bowman, world cotton; Bob Skinner and Les Meyer, domestic cotton. World information (202) 219-0820; domestic (202) 219-0840 **AO**



Livestock, Dairy & Poultry Overview

Beef Output To Rise In Second Quarter

Larger supplies of beef, pork, and poultry are expected in the second quarter of 1993, and record total meat supplies are forecast for the remainder of the year. Retail beef prices will fall as the larger meat supplies become available. Still, potential price declines in the beef sector will be affected mainly by marketing rates of fed cattle and supplies of nonfed beef.

Lighter dressed weights of fed cattle due to poor winter feeding conditions pushed beef production down substantially in the first quarter of 1993, though the number of cattle slaughtered declined only slightly. Tight beef supplies due to muddy feedlot conditions will support higher prices well into the spring quarter.

- First-quarter 1993 beef production was 4 percent below fourth-quarter 1992.
- Fed cattle prices in the High Plains set a record at nearly \$81 per cwt this winter. Retail beef prices, at \$2.92 per pound in first-quarter 1993, were more than 5 cents higher than in fourth-quarter 1992, and approached record highs set in 1991.
- Second-quarter beef production could increase 7 percent from the first quarter, and production of all meats is expected to be about 4 percent above first quarter. Total red meat and poultry production is expected to be nearly 2 percent higher for the year.

Agricultural Economy

Update on Beef, Pork, and Dairy

	1990	Annual 1991	1992	1992 Dec.	1993 Jan.	1993 Feb.
Cattle on feed, 7 states (1,000 head)						
Number on feed	8,378	8,992	8,397	8,894	9,073	9,065
Placed on feed	21,030	19,704	20,498	1,694	1,611	1,262
Marketings	19,198	19,066	18,623	1,414	1,489	1,431
Other disappearance	1,218	1,233	1,199	101	130	110
Commercial slaughter (1,000 head)						
Cattle	33,241	32,690	32,863	2,703	2,669	2,466
Steers	16,587	16,728	17,135	1,383	1,334	1,264
Heifers	10,090	9,725	9,236	710	753	690
Cows	5,920	5,623	5,839	560	533	466
Bulls & stags	644	614	653	50	49	46
Calves	1,789	1,436	1,371	124	104	99
Sheep & lambs	5,654	5,722	5,493	478	393	395
Hogs	85,136	88,169	94,862	8,360	7,832	7,092
Commercial production (mil. lbs.)						
Beef	22,634	22,800	22,958	1,855	1,823	1,677
Veal	316	296	300	26	22	21
Lamb & mutton	358	358	344	29	25	25
Pork	15,300	15,948	17,180	1,524	1,435	1,290
Milk						
Milk prod., 21 states (mil. lbs.)	125,772	125,671	128,300	10,659	10,760	9,996
Milk per cow (lbs.)	14,778	14,977	15,546	1,292	1,310	1,218
No. of milk cows (1,000)	8,512	8,391	8,253	8,247	8,215	8,204
U.S. milk prod. (mil. lbs.)	148,314	148,477	151,747	12,629*	12,749*	11,844*
Stocks, beginning (mil. lbs.)						
Total	9,036	13,359	15,841	14,826	14,215	15,410
Commercial	4,120	5,146	4,461	4,603	4,688	4,817
Government	4,918	8,213	11,379	10,223	9,526	10,593
Imports, total (mil. lbs.)	2,690	2,625	2,520	323	171	—
Commercial disappearance (mil. lbs.)	138,922	139,336	141,986	12,126	10,933	—

*Estimated. — = Not available.

See tables 14 and 16 for complete terms and definitions.

- Adjustments in marketing rates of fed cattle and supplies of nonfed beef could smooth price declines—even as retail prices approach the mid- to lower \$2.80 range and fed cattle prices approach the mid-\$70's per cwt.

Record Pork Output, Steady Prices in 1993

Projections based on the March inventory and farrowing intentions point to record-high commercial pork production in 1993. Despite larger supplies of pork

and competing meats, an improving economy and continued strong pork exports are expected to support prices.

- The 1993 projected pork production level—17.4 million pounds—would be 1 percent above the record set in 1992.
- The March 1 inventory of hogs and pigs was up 4 percent from a year earlier, as was the number kept for breeding and marketing.

- First-quarter 1993 pork production declined about 2 percent from a year earlier. The 1993 quarter had one less slaughter day than a year ago, colder weather, and smaller weight gain due to low-quality grain.
- Second-quarter 1993 production, however, may be about 4 percent above last year, which would put downward pressure on hog prices. Barrow and gilt prices are expected to average in the mid-\$40's per cwt in 1993, compared with an average of \$43 in 1992.
- Retail pork prices are expected to average near \$1.99 per pound in 1993, slightly above 1992.

Broiler Production Up, Prices Slightly Higher

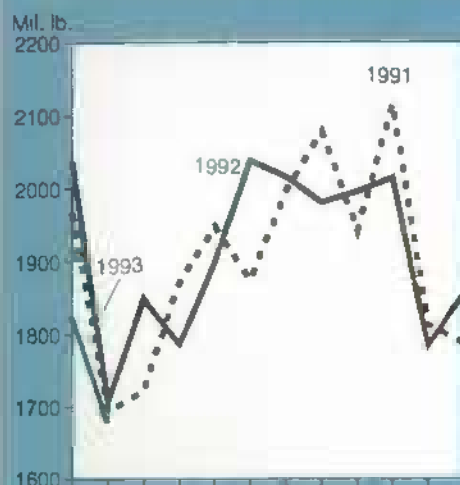
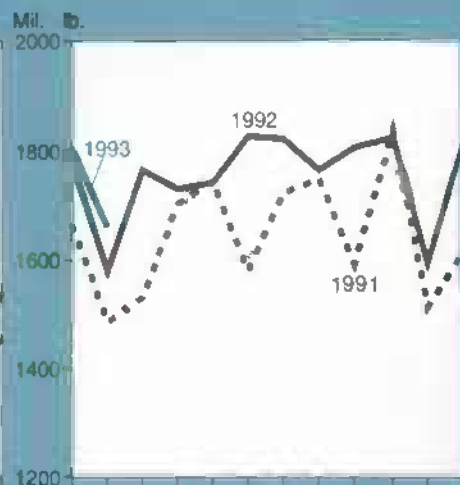
Favorable market conditions continue to encourage broiler expansion. Higher prices and stable feed costs are encouraging growth by providing positive returns to producers and processors. Strong domestic consumption and record exports are expected to keep prices generally above last year. Consumption growth is being helped by favorable retail prices compared with beef, and by strong marketing programs. Broiler prices are expected to rise seasonally during the cookout season this summer.

- Broiler production is likely to increase about 4 percent in 1993. Output in the second quarter is expected to be up about 5 percent from a year earlier, following nearly 5-percent increases in weekly chick placements in February-March. A third-quarter production increase of around 3 percent is anticipated.
- Per capita broiler consumption is expected to increase about 2 pounds, to 69 pounds (retail basis) in 1993.
- The U.S. will continue as the world's largest broiler meat exporter. Anticipated U.S. exports of 1.6 billion pounds in 1993 amount to over 7 percent of total production.

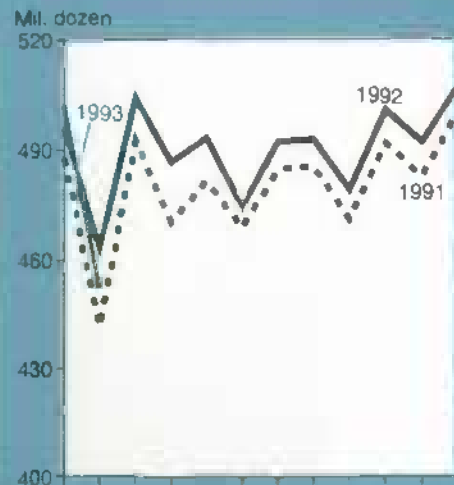
Agricultural Economy

Livestock & Product Output

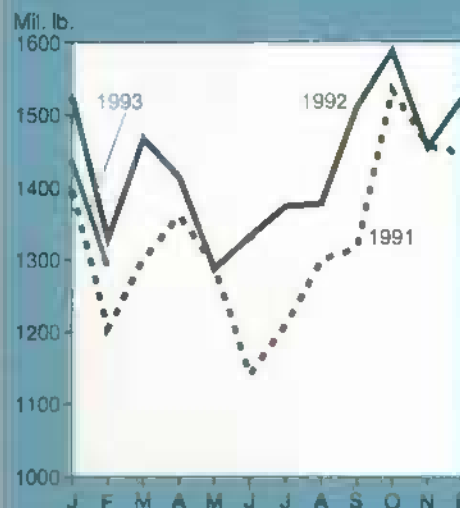
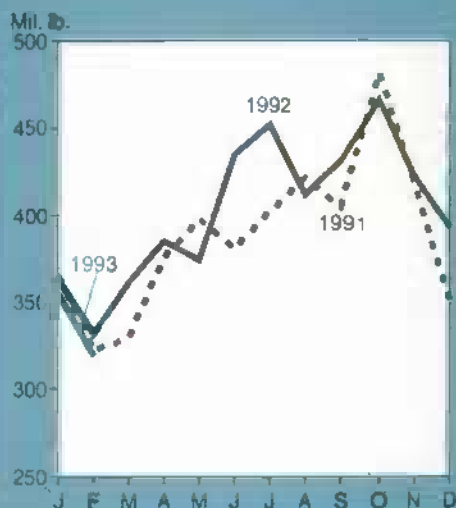
Commercial beef

Broilers¹

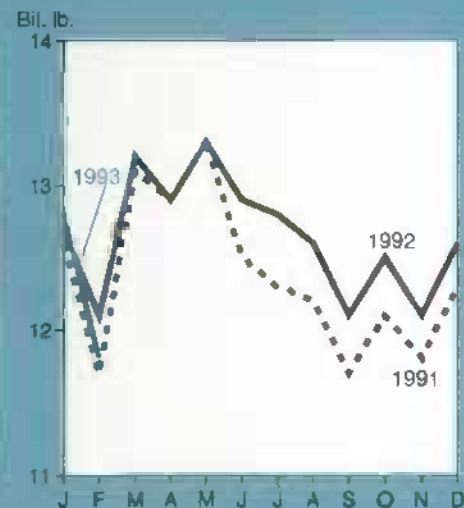
Eggs



Commercial pork

Turkeys¹

Milk



¹Federally inspected production, ready-to-cook.

- Annual 1993 wholesale prices for whole birds are expected to average slightly above 1992. Second-quarter prices are estimated at 50-56 cents per pound, compared with 52 cents last year. Seasonal increases in the third quarter will boost prices to about 55 cents. Retail prices in 1993 are expected to hold near the 1992 level.

Turkey Growth Slows, Prices Strengthen

Turkey output in 1993 is projected to grow 1-2 percent, compared with 3.8 percent in 1992. Prices strengthened as demand for turkey breast meat improved

in early 1993. Higher red meat prices also helped turkey prices. March turkey prices strengthened somewhat due to the increased demand of the Easter market.

- First-quarter turkey production increased about 2 percent from a year earlier (on a daily basis). The number of turkeys slaughtered was estimated to be slightly lower, while average bird weights were up 2-3 percent.
- Placements for second-quarter production averaged about 2 percent lower than a year earlier, but if birds remain heavier, production will change little.

- Second-quarter wholesale prices are expected to rise seasonally to around 60 cents per pound, about the same as a year earlier.

Net returns, aided by lower feed costs, are expected to improve slightly. Feed costs for first-half 1993 are at the lowest level since 1987, averaging 9 percent below last year. Net returns are expected to be near breakeven and encourage a year-over-year increase in poult placement for fall production.

Higher Prices Encourage Egg Production Growth

Lower per capita supplies and strength in consumer demand have boosted 1993 egg prices. Wholesale egg prices are well above last year's levels, and retail prices, which moved more slowly this year than wholesale prices, have edged up only slightly.

- Second- and third-quarter New York wholesale egg prices are likely to be 10 cents per dozen higher than last year's 62 and 64 cents.
- For all of 1993, wholesale prices will likely average about 74 cents, compared with 65 cents in 1992.

Total egg production in 1993 will be up slightly. The flock size has remained fractionally larger than last year.


- First-quarter egg production was larger on a daily basis than last year, but totaled about the same because February 1993 had fewer days. Second-quarter production, based on a larger flock, should be about 1 percent larger than last year.
- Total egg production is expected to be just over 5.9 billion dozen in 1993; table-egg production will increase one-half percent.
- First-quarter 1993 flock replacement was 16 percent less than in 1992. The 1992 hatch of egg-type chicks, off 11 percent in the second half, was 8 percent less than in 1991.
- The first-quarter 1993 hatch was up 5 percent, increasing pullet availability in late spring and early summer.

Dairy Sales Brisk, Prices Pick Up

Wholesale dairy product prices moved higher in late winter. Most gains were the result of brisk movement of dairy products, especially American cheese. Traders began to rebuild pipeline stocks of cheese after realizing that further price declines were unlikely. Product movement will probably slacken once pipeline holdings are rebuilt. Large amounts of nonfat dry milk were dedicated to filling Dairy Export Incentive Program (DEIP) contracts that were announced at the end of 1992, and domestic nonfat dry milk users probably built inventories and obtained supply commitments for later in 1993.

- Wholesale cheese prices jumped 24 cents per pound in March and early April.
- Wholesale nonfat dry milk prices edged higher in January and February and dropped slightly in early March. Mid-April powder prices were 4 cents per pound above last autumn's levels.
- Cheese and nonfat dry milk prices were about 28 cents above support purchase prices, and nonfat dry milk prices were 16 cents above.

Relatively strong farm milk prices are expected to hold milk output near last year, although poor feed quality may make it difficult for milk production to respond quickly to rising prices. January-March milk production was barely above a year earlier, following large gains during the second half of 1992.

For further information, contact: Richard Stillman and Agnes Perez, coordinators; Steve Reed, cattle; Leland Southard, hogs; Lee Christensen, Larry Witucki, and Milton Madison, poultry; Jim Miller and Sara Short, dairy. All are at (202) 219-1285. 

Specialty Crops Overview

Larger Supplies Lower Fruit Prices

Larger supplies of oranges and apples lowered U.S. fruit prices at both the grower and retail levels in 1992. Prices are expected to stay down in 1993. Moderate domestic apple demand and reduced exports are adding downward pressure on grower prices. Increased imports are putting downward pressure on banana and fresh grape prices.

- Large orange crops in California and Florida pushed the U.S. average grower prices for all oranges 40-70 percent below year-earlier levels during November-March.
- A record-large apple crop in 1992 and large stocks intended for marketing in 1993 held the grower price index for fresh apples about 20 percent below a year earlier during the fall and winter.
- The Consumer Price Index (CPI) for fresh fruit averaged 5 percent lower in 1992 than in 1991, and will likely continue flat for a while longer because of abundant apple supplies and larger imports of bananas.
- An expected 40-percent increase in Florida orange juice production in 1992/93 will put downward pressure on the 1993 CPI for processed fruit.

Less Acreage for Processing Vegetables

Acreage of the five major processing vegetables is expected to fall in 1993 because of declines in green peas and sweet corn. Canning tomato acreage is expected higher. Higher dry bean prices this spring are expected to nudge planted area above 1992 acreage.

Agricultural Economy

EC's New Banana Regime May Lower U.S. Price

As the European Community (EC) moves toward a single internal market, it is harmonizing the banana import policies of its member countries. Currently, Germany imports low-cost but high-quality bananas duty free from Latin America. Other EC countries impose a 20-percent tariff on imports from Latin America and favor bananas from "domestic" sources (Crete, Madeira, Canary Islands, Martinique, and Guadeloupe) and from their former colonies in Africa, the Caribbean, and the Pacific (ACP), by allowing duty-free access.

The new banana regime, effective July 1, 1993, will apply uniform import regulations across the EC. It will impose a tariff of approximately 20 percent to the first 2 million metric tons of banana imports from Latin America. Additional imports from Latin America will face a tariff of 170-200 percent, depending upon price. Imports from the ACP will continue to enter duty free, up to their highest historic levels, but any imports beyond that level will be assessed duties.

Higher tariffs on bananas from Latin America will mean higher prices in Germany and possibly other EC countries, and EC banana imports will likely decline under the new policy. In 1991, Latin America supplied 2.4 million of the 3.85 million metric tons of bananas imported by EC countries. Most of the remainder came from the ACP countries and the "domestic" sources. If imports continue at 1991 levels, about 400,000 tons of bananas would face the high tariff on over-quota imports.

But if Latin American suppliers divert bananas to the U.S., currently its largest export market, the U.S. supply could increase as much as 10 percent. Larger supplies likely would lower banana prices for U.S. consumers in the second half of 1993, and increase the competition faced by U.S. fruit producers.

[Dennis Shields (202) 219-0883]

Occasional supply shortages and price spikes can be expected for fresh vegetables during May due to disruptions in planting schedules in March when a late-winter storm passed through the Southeast. Cold weather and high wind destroyed newly planted tomatoes, peppers, cucumbers, squash, and beans, forcing growers to replant in northern Florida and southern Georgia, and reducing yield potential from wind-blown plants in central and southern Florida.

- This year, processors expect to contract 1.38 million acres of the five major vegetable crops (snap beans, green peas, sweet corn, cucumbers for pickles, and tomatoes), down 5 percent from 1992.
- Planted area of green peas is expected 26 percent lower than last year. Overproduction and weak market demand have resulted in large carryover from 1992.

- Processors plan to contract 15 percent more tomato acreage than last year but 13 percent less than in 1991. Last year's processing tomato acreage dropped 25 percent because of apparent large stocks and low prices.

- Dry edible bean producers indicate plans to increase planted area by 6 percent from 1992. Dry bean acreage fell 18 percent last year. As with tomatoes, intended acreage responded to large stocks and low prices last year.
- Sweetpotato growers intend to plant slightly more acreage this season. Planted acreage has remained nearly unchanged since 1991.

Tobacco Growers To Reduce Acreage

With smaller quotas and last season's price almost matching the previous year's, U.S. tobacco growers have indicated they intend to reduce plantings in 1993. Flue-cured tobacco disappearance is expected to rise in 1992/93 because of higher domestic use and increased exports, while burley disappearance is expected to fall due to declining domestic use.

While cigarette export volume has grown, domestic consumption has trended downward for a number of years, and the decline is expected to continue in 1993. Proposed higher Federal excise taxes, if enacted, could further accelerate the decline in cigarette consumption. But at least one manufacturer has effectively cut prices on a major brand through the use of coupons and other price discounts, and other cuts may

Growers To Plant Fewer Acres of Processing Vegetables

	Planted		Intended
	1991	1992	1993
	1,000 acres		
Processing vegetables ¹	1,641	1,542	1,379
Dry edible beans	1,964	1,614	1,711
Sweetpotatoes	81	81	82
Sugar beets	1,427	1,435	1,458
Tobacco: ²			
Flue-cured	403	402	400
Burley	312	324	301
Other	49	51	51

¹ Lima beans, snap beans, beets, cabbage, sweet corn, cucumbers for pickles, green peas, spinach, and tomatoes. ² Lima beans, beets, cabbage, and spinach estimates reinstated in 1992. ³ Harvested acreage.

Cigarette Taxes, Prices, & Use

Cigarettes are taxed by all 50 states, many local jurisdictions, and by the Federal government. State taxes vary widely, from 2.5 cents per 20-cigarette pack in Virginia to 51 cents in Massachusetts. In January 1993, the Federal tax on cigarettes rose from 20 to 24 cents per pack. Congress and the Administration are currently considering a further increase.

The Federal government began taxing cigarettes in 1865. It was not until 1921 that Iowa imposed the first state cigarette tax. By 1940 half the states taxed cigarettes, and since 1970, cigarettes in all states and the District of Columbia have been subject to taxes.

Excise taxes are paid by manufacturers and wholesalers, but are usually passed on to the consumer in the form of higher prices. But while cigarette taxes have increased, the tax share of the consumer's price has fallen, because prices have risen faster than taxes. According to the Tobacco Institute, the national average state and Federal tax component of retail cigarette prices reached a high of 51.4 percent in 1966, declining to a low of 25.6 percent in 1991.

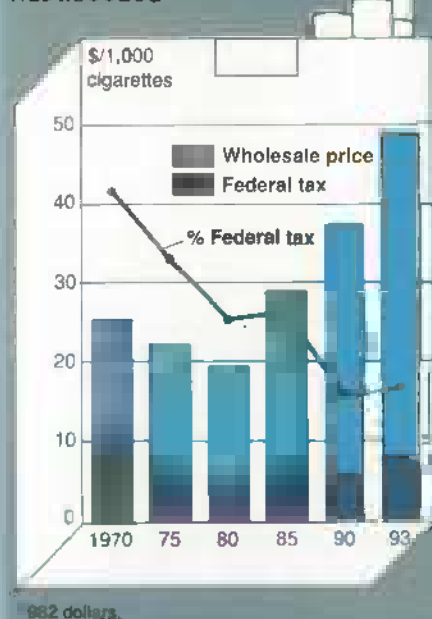
Is there a relationship between cigarette prices and consumption? State-by-state data on cigarette sales tax collections suggest that per capita sales are lowest in states where prices are highest. In 1991, average cigarette prices were highest—more than \$1.95 per pack—in Alaska, Hawaii, California, Washington, New York, and Minnesota. Prices were lowest—\$1.55 or less—in Indiana, Missouri, South Carolina, North Carolina, and Kentucky. Tax collections indicate that per capita sales (population 18 years and older) averaged 110 packs per year in the high-price states, and 186 packs in the low-price states.

But low cigarette sales in a particular state do not necessarily mean that consumption in that state is low. Some cigarettes are purchased in low-tax states and used in high-tax states—New Jersey to New York, for example.

The consensus of a number of studies is that cigarette consumption slips 2-4 percent for each 10-percent increase in the retail price. But other factors are also at work. Some smokers, for example, may maintain consumption levels in the face of higher prices by switching from premium to lower priced generic brands. In addition, factors other than price, such as health concerns, increasing restrictions, and declining social acceptance of smoking, affect cigarette use.

[Thomas Capehart (202) 219-0883]

**Cigarette Prices Rose,
But Federal Tax Share
Has Receded**



follow. These price cuts and shifts to lower priced brands may offset the effects of higher taxes.

- In early March, U.S. tobacco growers indicated intentions to plant 399,500 acres of flue-cured tobacco (down 0.5 percent from 1992) and 300,500 acres of burley (7 percent less than last season). Assuming average yields, this year's U.S. tobacco crop would decline about 4 percent from 1992's 1.68 billion pounds.
- Domestic disappearance of flue-cured tobacco rose during the first half of the marketing year (July-December 1992) because of strong export demand for cigarettes. Exports were above year-earlier levels, with both European and Asian countries increasing purchases.
- Despite higher cigarette output, domestic disappearance of burley tobacco in 1992/93 will likely decline because of increased substitution of foreign-grown leaf for domestic.
- U.S. smokers used 498 billion cigarettes in 1992, 2 percent fewer than in the previous year. The U.S. average consumption for persons 18 years and over was 2,629 cigarettes.

Sugarbeet Acreage To Rise in 1993

U.S. sugarbeet growers indicate intentions to increase the acreage planted with sugarbeets in 1993. U.S. sugar output has risen more rapidly than consumption over the past 3 years, reducing demand for imported sugar to meet domestic needs.

- Sugarbeet growers indicated intentions to boost plantings by 2 percent in 1993, to 1.46 million acres. The biggest increases occurred in California, where acreage increased 5 percent, and in Michigan and Minnesota, with increases of 4 percent each.

Agricultural Economy

- Despite the increased acreage, a return to normal yields could result in slightly smaller output in 1993/94 than the record 4.3 million tons (raw value) for 1992/93. Beet sugar production accounted for 56 percent of estimated total U.S. sugar production in fiscal 1992/93.
- The 1993/94 output will include as much as 220,000 tons of sugar recovered from beet sugar molasses using new reprocessing technology.

Catfish Output To Drop, Other Species To Gain

In 1993, for the first time since 1975, U.S. catfish production is expected to decline from the previous year, lifting farm prices from 10-year lows. Rapid industry growth has resulted in low catfish producer prices for several years. But U.S. farm production of trout, tilapia, and salmon is expected to increase in 1993.

- Growers' inventories of stockers and food-size catfish on January 1 were down 10 percent from a year earlier, and the fingerling inventory was down 21 percent.
- Low prices for farm-raised trout are expected to persist throughout 1993 because of higher domestic production, as well as market competition from imports of other species.
- Tilapia output is expected to rise substantially from the 1992 level of 9 million pounds (live weight) as new facilities come on line and others expand.
- Output of farm-raised salmon is expected to increase modestly in 1993 from 19 million pounds in 1992 (live weight). The farm value of salmon production (\$55-\$60 million) now exceeds the value of food-size trout (\$53 million).

- Farm-raised shrimp production in the U.S. has been expanding in recent years, although it is still small relative to the domestic wild catch.

[Glenn Zepp (202) 219-0883]

For further information, contact:
Dennis Shields and Diane Bertelsen, fruit and tree nuts; Gary Lucier, vegetables; Peter Buzzanell, sweeteners; Doyle Johnson, greenhouse/nursery; Verner Grise, tobacco (202) 219-0883; David Harvey, aquaculture; Lewrene Glaser, industrial crops (202) 219-0085. **AO**

May Releases From USDA's Agricultural Statistics Board

The following reports are issued at 3 p.m. Eastern time on the dates shown.

May

- 3 Crop Progress
Egg Products
Poultry Slaughter
- 5 Broiler Hatchery
- 6 Dairy Products
Dairy Products, Annual
- 10 Crop Progress
- 11 Crop Production
- 12 Broiler Hatchery
Potato Stocks
- 13 Milk Prod. Dis. & Income
Turkey Hatchery
- 14 Milk Production
- 17 Crop Progress
- 18 Farm Labor
- 19 Broiler Hatchery
- 20 Catfish Processing
- 21 Cattle on Feed
Cold Storage
Livestock Slaughter
- 24 Crop Progress
Eggs, Chickens & Turkeys
- 26 Broiler Hatchery
- 27 Peanut Stocks & Processing
- 28 Agricultural Prices
Cotton Ginnings

Commodity Spotlight



Clear Springs Foods

Aquaculture: Lower Costs, Long-term Growth

Until recently, the production of farm-raised fish and shellfish—aquaculture—was regarded as a very minor segment of the U.S. seafood industry. But the role of aquaculture is growing, and its production and marketing techniques are evolving rapidly.

Although wild-catch seafood dominates the saltwater sector, aquaculture is a major source of commercial freshwater fish in the U.S. And while catfish farming—the largest segment of the U.S. aquaculture industry—is retrenching after a period of very rapid growth, the long-term outlook for aquaculture calls for expanding output.

Consumption of farm-raised seafood products in the U.S. has continued to rise, even though overall seafood consumption has declined to 14.9 pounds per capita in 1991 from 16.2 in 1987. This is because inflation-adjusted prices of many farm-raised products have dropped, both absolutely and relative to prices for comparable wild-catch products. Aquaculture productivity is

Shrimp Farms of Asia Dominate World Growth

Global output of farm-raised shrimp rose in 1992 to an estimated 720,000 metric tons (heads on), over one-quarter of world production. Most of the growth in farmed production in the last several years has been in Asia—especially China, Thailand, and Indonesia.

Farm-raised shrimp operations include extensive, intensive, and semi-intensive growout systems. The extensive method uses only shrimp that are available naturally, stocking ponds by allowing ocean water to flow in when high concentrations of post-larvae are likely to be in the water. Water quality is maintained by tidal action, and the shrimp eat food naturally present in the pond. While this is a very inexpensive method, yields from these ponds are low. Farmers in India and Bangladesh commonly use this system.

In semi-intensive production systems, ponds are stocked at higher densities and usually require aeration and some supplemental feeding. The added expenses for water quality management and feeding are normally balanced by higher yields than with extensive operations. These systems are common in China, Thailand, and Indonesia.

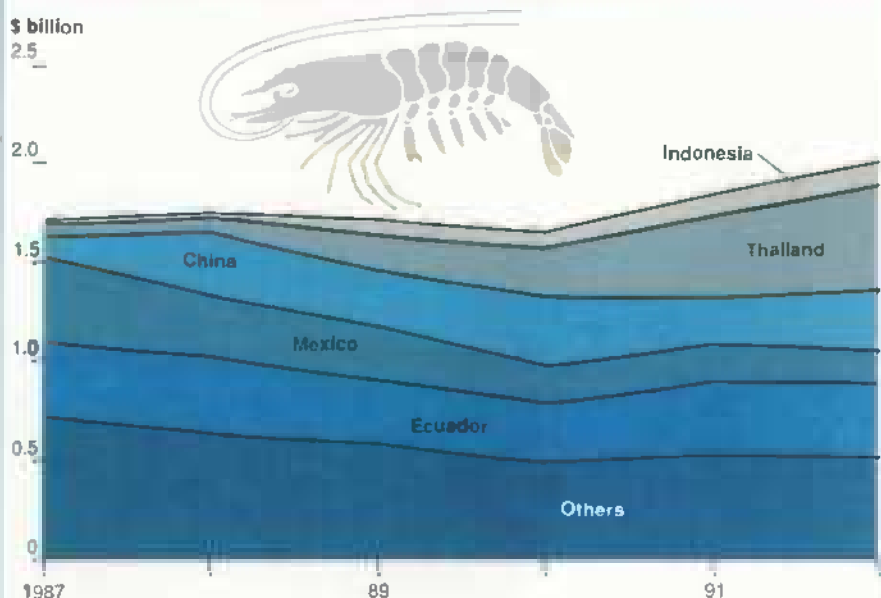
In intensive systems, control and monitoring of all aspects of water quality and feeding become more critical. Aeration of water is accomplished either by constant action of aeration equipment or by an oxygen injection system. Feeding rates are also high, and in most cases, high feeding levels can be maintained only if there is a way of removing wastes from the

growing system. Intensive or super-intensive growing systems often use circular tanks with center drains for waste removal. These systems are found chiefly in Japan and Taiwan.

While some shrimp is farmed in the U.S., several factors work against its becoming a major producer—lack of low-cost coastal land, high labor costs, and temperate climate. An alternative that may prove valuable to the U.S. shrimp industry is the production of disease-free broodstock and disease-free post-larvae.

This is important because as production densities have increased on shrimp farms in other countries, disease problems have accelerated. Moreover, disease can spread as post-larvae shrimp are shipped overseas. U.S. scientists and growers are now examining the possibility of developing populations of disease-free stocks that could be supplied to growers around the world. Dissemination of disease-free stocks would boost production not only by lowering mortality but also by improving feed conversion rates.

Asian Countries Expand Market Share of U.S. Shrimp Imports



Most production from Ecuador and Asian countries is farm raised. Others include Philippines, India, Pakistan, Bangladesh, and Central American countries.

increasing, pulling down production costs and boosting sales, most likely at the expense of wild-catch products. Rising restrictions on wild-catch seafood—for example, the shortened halibut season in Alaska—will continue to make aquaculture's products more price competitive.

The U.S. is the world's largest seafood exporter and the second-largest importer, and aquaculture is playing a key role in world seafood trade. Aquaculture imports are likely to take an ever-larger share of the U.S. market. For example, more than half of the \$2 billion of shrimp imported by the U.S. in 1992 was farm

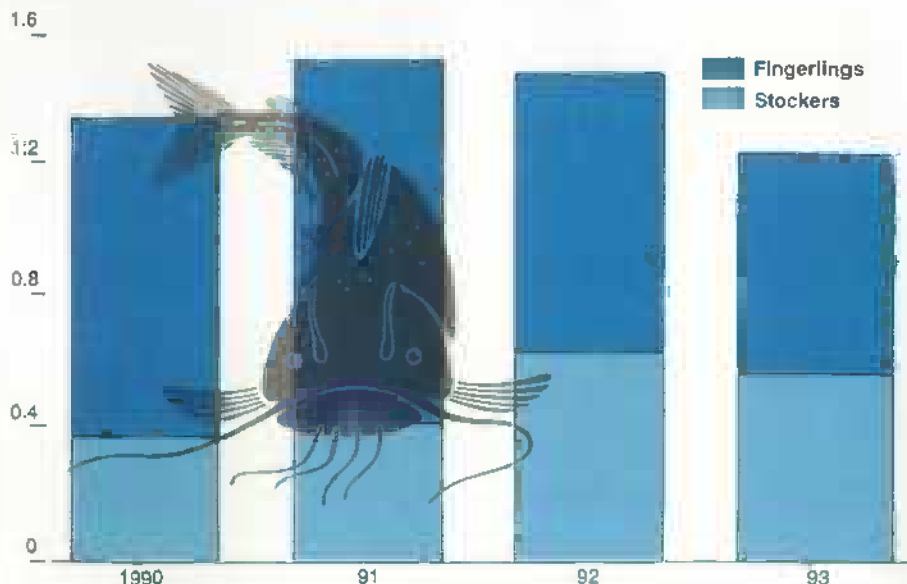
raised. Fresh and frozen Atlantic salmon now account for more than half of salmon imports and most is farm raised.

The list goes on, with higher imports of cultured shellfish from Canada and New Zealand, and rapidly expanding imports from Asian and South American tilapia

Commodity Spotlight

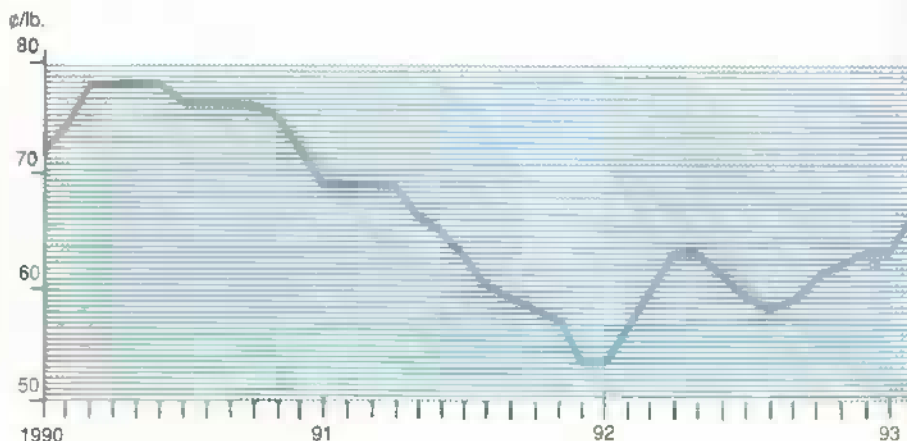
Lower Catfish Inventories...

Million fish



As of January 1. Fingerlings: <60 lbs. per 1,000 fish. Stockers: 60-750 lbs. per 1,000 fish.

... Lead to Higher Prices



Grower prices per pound liveweight.

farms and China's crawfish operations. U.S. aquaculture exports are currently small, but some promising growth areas, such as disease-free shrimp broodstock, are emerging.

High-Value Species Lure Farmers

Uncertainty about wild-catch production is fueling aquaculture growth. In 1990, the world commercial catch of fish, crustaceans, and mollusks was estimated at 97.2 million metric tons, a contraction of

3 percent from 1989's record 100.3 million tons. It is not known whether this drop is simply a 1-year downturn or a signal that wild-catch production has achieved its maximum level. Data for 1991 are not yet available.

Many marine biologists believe that harvesting rates in many areas have exceeded natural replenishment rates over the past several years. According to the Food and Agriculture Organization, the worldwide total annual catch increased 400 percent between 1950 and 1990.

Although the wild catch is expected to continue to dominate saltwater seafood production, farmed production is likely to expand. Restrictions on wild-catch commercial harvesting—or threats of restrictions—have often spurred the development of aquaculture. Examples of species for which tightening restrictions led to aquaculture production are redfish and hybrid striped bass.

As a species' commercial value increases, it attracts the interest of aquaculturalists. High market values are needed to cover the risks inherent in cultivating a new species. Some increasingly valuable species that are being evaluated for farm production are halibut, flounder, and bluefin tuna.

But adaptability of a species to a cultured situation can also be a determinant in its aquaculture development. Lobster farming, for example, has attracted considerable interest, but because of lobsters' aggressive nature, high population densities are not possible, so their culture is not economically viable.

Catfish Production Pulls Back

U.S. catfish production is expected to fall in 1993, according to January 1 inventory figures reported by growers. A drop in production would be a sharp turnaround. The last time catfish production declined was in 1975, and it has climbed over 2,700 percent since.

But the long-term boom in catfish production, with output growing more than 60 percent between 1987 and 1992, gave way to a fall in catfish prices in mid-1991. Low prices carried through most of 1992. The drop in grower prices resulted in lower processor prices, and sales volume remained high despite a slowdown in the U.S. economy. But while total revenues for processors and farmers increased, per-pound prices were below production costs, and farmers' income from catfish sales likely fell in 1992.

Facing low farm prices and income, catfish farmers cut back on pond stocking densities and lowered feeding rates.

While the number of catfish farmers fell 20 percent in 1992, pond acreage declined only 6 percent, as many of the departing operators had small acreage or sold their ponds to other producers. Tighter supplies resulting from the retrenching have led to a gradual increase in farm-level prices. By the end of 1992, farm prices had risen from a trough of 58 cents a pound to 63 cents. The upward trend continued through January and February 1993, when prices averaged 63 and 67 cents a pound.

Farm and processor catfish prices are expected to continue increasing. Farm prices in February were 6 percent above December 1992 and 20 percent higher than a year earlier. The extent of the price increase will depend on the following factors.

- The consumption of catfish appears to be relatively price-sensitive, and a small price increase in 1993 may reduce consumption to match the tighter supply. Also, growers under financial pressure may be eager to sell as much fish as possible, which would restrain price increases.
- The strength of the economic recovery will have a major impact on the price of catfish. The restaurant and food-service industries are very price-sensitive, and the availability of various substitutes is a strong price determinant.
- Processors may be able to absorb a portion of the expected increase in catfish farm prices. In 1992, grower prices fell faster than processor prices. Catfish sales will also depend on how quickly retailers pass through increases in wholesale prices.

Trout Prices Vary Among States

Tight water supplies and falling prices pushed down production of food-size trout in 1992 by 5 percent. Now that water supplies have recovered in the West, trout egg sales have jumped 45 percent, indicating output of food-size

Tilapia Production Warms Up

Tilapia, a warm-water fish native to Africa, is now grown throughout the world. Tilapia are well suited for aquaculture because they can be grown at very high densities, they contract few major diseases, they breed easily, and their growth rate is rapid. Tilapia's need for warm water—they die at water temperatures below 55 degrees Fahrenheit—has been a major restriction on U.S. production.

U.S. tilapia output is now expanding as numerous new facilities, many using indoor water recirculating systems, begin to harvest market-size fish. To maintain optimal growing temperatures, several water systems use geothermal heat, heat from waste wood, or heat produced for other industrial processes. Energy from these sources is sometimes available at little or no cost.

U.S. production is expected to continue growing, and inflation-adjusted prices will likely decline. The rate of growth hinges on a number of questions.

- How large is the domestic market for live and never-frozen tilapia? Domestic growers will likely have this market to themselves due to the restrictions and expense involved in importing live and never-frozen animals.
- Will domestic growers be able to compete effectively with foreign producers in the fillet markets?
- Will the lack of geographic concentration make it difficult for processors to achieve economies of size and for feedmill operators to specialize in tilapia feeds?

fish will rise substantially over the next year. California production in particular should rally. California had been the

second-largest trout producing state until last year, when drought sank its output below Pennsylvania's, Washington's, and North Carolina's.

The recession and growing competition from other fish species dampened trout prices in 1992. The average price for food-size fish, at 94 cents a pound, was down 5 percent from the previous year and down 18 percent from 1990. The price in Idaho, at only 67 cents, was the lowest in 5 years. Pennsylvania prices, while much higher than in Idaho, have also been falling, and were also at a 5-year low in 1992. An exception to the trend was North Carolina, where prices rose 7 percent.

Producer prices for trout vary considerably from state to state because of the different markets served. State average prices are much lower in Idaho, the largest producing state, where most trout are marketed to large grocery and food-service chains.

In Michigan, as in other small production states, direct sale to retailers and restaurants is the largest market for food-size trout. The second-largest Michigan market consists of fee-fishing operations. Each of these markets brings higher prices than the processed market. Michigan's food-size fish prices average well over \$2 per pound (174 percent greater than the U.S. average), and growth in production of food-size trout has been exceptional. Although its output is relatively small, Michigan is the only state where production has grown in the last 4 years.

New Species, New Technologies

Aquaculture operations now exist in almost all areas of the country and produce an expanding variety of species. In Maine, farm-raised salmon, a fledgling industry 5 years ago, was worth more than \$45 million in 1992, second only to wild-catch lobsters.

Another example of rapid expansion of an aquaculture industry is tilapia, a hardy tropical fish now being grown throughout the U.S. Like Maine's farm-raised

Commodity Spotlight

salmon, farm-raised tilapia was almost nonexistent in the U.S. 5 years ago. By 1992, tilapia output was estimated by the American Tilapia Association at 9 million pounds and is expected to increase again in 1993. The market for tilapia has broadened considerably from its initial ethnic Asian niche to include restaurant use, for example.

New aquaculture technologies are being developed to help producers deliver an improved product to consumers. For example, freezing techniques that maintain a "fresh" taste are in the offing. In addition, USDA's Agricultural Research Service is investigating the use of remote sensing to help catfish producers control off-flavor problems caused by algae buildup in ponds.

A strengthening U.S. economy is expected to boost seafood sales in 1993. Many forecasts point to 3-percent growth in U.S. gross domestic product, and consumer incomes are expected to show moderate growth. As incomes rise, consumers increase food expenditures at restaurants, the prime outlet for both farm-raised and wild-catch seafood.

Growth in aquaculture demand will depend on prices of wild-catch seafood and competing meat and poultry products. Retail prices for meat and poultry declined in 1992, while fish and other seafood prices rose 2.3 percent. USDA forecasts 1993 meat and poultry supplies to exceed last year's record levels, and prices of meat and poultry, as well as fish and other seafood, are expected to be within 2 percent of 1992 prices.

Growth of the aquaculture industry may be slowed somewhat by environmental concerns about water quality and availability, effluent disposal, and wastewater treatment. But production and marketing methods are expected to improve, lowering costs and raising the attractiveness of farm-raised seafood to consumers.

[Dave Harvey and Greg Gajewski (202) 219-0085] **AO**

World Agriculture & Trade



Agribusiness Spans National Borders

From giants like Food Lion and Pillsbury to the little-known Brasseire and Lazzaroni's Bakery, foreign-owned companies have become a staple of U.S. agribusiness and a symbol of global expansion in foreign investment. Foreign investment in U.S. agribusiness accelerated in the late 1980's in response to economic conditions in the U.S., and reached nearly \$39 billion, not including land, in 1991. During the same period, U.S. investment in agribusiness companies abroad also accelerated and by 1991 totaled nearly \$46 billion.

While foreign trade in agricultural products continues to expand globally, foreign investment by international agribusiness companies is growing much faster, as companies seek to increase sales of their products in foreign markets and, in some cases, take advantage of inexpensive labor and technology transfer to increase profits. Europe and Japan began investing heavily in U.S. agribusiness in the late 1980's, while the U.S.

stepped up investments in Canada and Mexico as well as in Europe during this period. U.S. investment in Mexico has more than doubled just since 1989.

Agribusinesses cover the spectrum from farm to retail, and include food processors, clothing manufacturers, supermarkets, and restaurants, as well as vineyards, ranches, packing sheds, and feedlots. Foreign investments include mergers and the acquisition of already existing businesses, as well as the formation of new enterprises—"greenfield" investments—involving plant building and job creation.

European Community (EC) affiliates of agribusiness companies employed 120,000 persons in U.S. food-related industries and 204,000 persons in retail in 1991. However, because many of the investments were acquisitions of already existing industries, EC investments created only a small number of new jobs.

U.S. & Europe: Reciprocal Investment

European Community companies are the foremost investors in U.S. agribusiness, and EC investment rose from \$15 billion in 1987 to \$25 billion in 1990, nearly 80 percent of total foreign agribusiness investment in the U.S. that year. Large EC investment in the U.S. partly reflects the reciprocal relationship between U.S. and European conglomerates in the food industry and the concentration of the industry. Six of the top 50 food manufacturing firms in the U.S. have parent companies in the EC, while 11 of the top 50 EC firms are affiliates of U.S. companies.

The top three EC investing countries are the United Kingdom (UK), which accounts for 43 percent of total EC investment in U.S. agribusiness; Netherlands, with 29 percent; and Germany, with 8 percent. UK firms almost doubled their investment in U.S. agribusiness between 1987 and 1990, and accounted for most of the EC growth. The largest single food industry purchase in recent times, for example, was the acquisition of Pillsbury in 1989 for \$5.8 billion by Grand Metropolitan, a UK food processing company.

World Agriculture & Trade

Large European companies outside the EC, including Switzerland's Nestle and Jacobs Suchard, are also major holders of U.S. agribusiness assets. The six European-based food firms among the top 50 in the U.S. are: Nestle (based in Switzerland); Unilever (UK and Netherlands); Gruppo Ferruzzi (Italy); and Grand Metropolitan, United Biscuits, and Allied Lyons (all based in the UK).

Food processors accounted for 70 percent of total EC agribusiness investment in 1990, followed by supermarkets and other food stores (8 percent of the total), and textile products and apparel companies (7 percent). Farm machinery firms, food wholesalers, restaurants, and farms each accounted for less than 5 percent of the total. The following are examples of agribusiness firms owned by EC interests.

- **Food processors** include Pillsbury, Ragu Food Company, Purina Mills, and Durkee French Foods. Central Soya, the largest soybean processing company in the U.S., is owned by Gruppo Ferruzzi, a conglomerate based in Italy.
- **Textile and apparel manufacturers** include Benetton USA, Carleton Woolen Mills, and J.W. Morgan Knitting Mills.

- **Supermarkets** include A&P (ranked 4th in sales in the U.S.), Albertson's (ranked 5th), Food Lion (10th), and Ahold (13th).

- **Restaurants** include Pillsbury's Burger King, Dunkin' Donuts, Hardee's/Roy Rogers, and other fast-food firms. Bice Restaurant in New York City is among a number of deluxe dining establishments owned by foreign investors.

- **Wineries** owned by EC interests, and concentrated in California's Napa Valley, include Mont La Salle Vineyards, Almaden Vineyards, Christian Brothers Winery, Clos Du Bois Wines, Simi Winery, and Domaine Carneros.

EC companies in the late 1980's favored mergers and acquisitions rather than the establishment of new enterprises. The latter type of investment would result in more job creation in the U.S. Most of the new enterprises that have been formed are producing European-brand food items like cookies and biscuits, yogurt, cheeses, prepared spaghetti sauces, and candy bars. Development of these

products has added to employment as well as to the diversity of foods available to U.S. consumers.

The late-1980's expansion of European companies' investment in the U.S. reflected the buildup of savings in the EC. The high rates of return on U.S. investments from the depreciated dollar, and very high interest rates, attracted capital to the U.S. The U.S. business climate was also conducive to foreign direct investment, as many states actively pursued investment from abroad as a means of creating jobs where the employment base had shrunk.

Many European multinationals also expanded during this period to increase sales in prospective markets; only a few food and agricultural products of EC subsidiaries are exported back to EC countries. The U.S. has also been a stable place to invest and has offered many opportunities for diversifying investments.

Japanese Investors Building Specialized Plants

Japan's corporate investment in U.S. agribusiness doubled between 1986 and 1990, to \$1.8 billion, but the rate of investment has been slowing down since then. Japanese firms are now the fourth-largest U.S. investor, after firms from the EC's United Kingdom, the Netherlands, and Germany. The rapid growth in Japan's investment during the late 1980's mirrored the rapid growth in Japan's trade surplus. U.S. agribusiness is only one sector in which Japan invested.

While the favorable business climate in the U.S. was the key variable in Japanese firms' investment expansion, other factors also played a role. The devaluation of the dollar with respect to the yen made U.S. production costs competitive with Japan's. Also, some of the U.S.-Japan trade agreements during this period enhanced foreign investment. For example, the 1988 U.S.-Japan Beef and Citrus Understanding opened the Japanese import market to these products. Japanese and American businessmen saw this as an opportunity to invest in ranches, feedlots, meat processing facilities, citrus packing

Food Processing and Retailing Attract Top Foreign Investors in U.S. Agribusiness



Food retailing includes eating and drinking establishments.
Source: U.S. Department of Commerce, Survey of Current Business

World Agriculture & Trade

Foreign Landownership Is Small & Static

Foreign investment in U.S. agricultural land was valued at slightly over \$11 billion in 1991. Foreign persons—individuals, governments, corporations, partnerships, institutions, associations, and other entities—reported that they owned 14.8 million acres, or slightly more than 1 percent of privately owned U.S. agricultural land (farm and forest land) as of December 31, 1991. This proportion has held fairly steady since 1981. The 1991 figure is a 3-percent increase (419,474 acres) from a year earlier.

Forest land accounts for 49 percent of all foreign-owned acreage, cropland for 17 percent, pasture and other agricultural land 31 percent, and non-agricultural land 3 percent.

Corporations own 73 percent of the acreage; partnerships, 19 percent; and individuals, 6 percent. The remaining 2 percent is held by estates, trusts, institutions, associations, and others.

More than half of the foreign-held acreage (53 percent) is owned by U.S. corporations in which foreign persons have a significant interest or substantial control. The remaining 47 percent was reported as held by foreign persons not affiliated with a U.S. corporation.

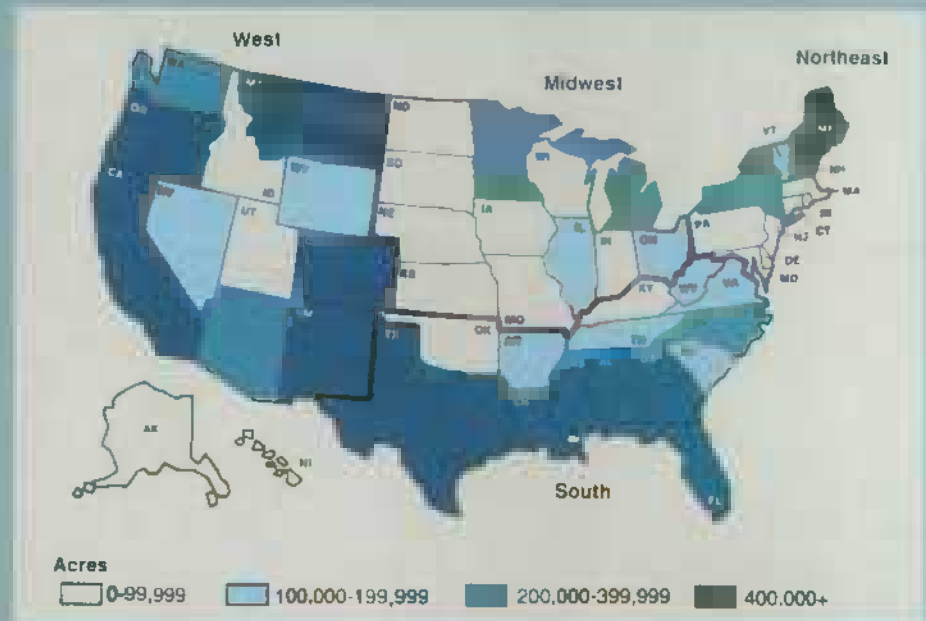
Foreign persons from Canada, the United Kingdom, Germany, France, Switzerland, Netherlands Antilles, and Mexico account for 73 percent of the foreign-held acreage. Foreign persons from Japan own only 3 percent of the foreign-owned acres.

These findings are based on analysis of reports submitted by foreign investors to the U.S. Department of Agriculture under the Agricultural Foreign Investment Disclosure Act of 1978.

While many states actively encourage foreign agribusiness investors, the ownership of agricultural land generates a different response. The Federal government limits its regulation to reporting requirements. But twenty-eight states have some type of law limiting foreign landownership in various ways, from outright prohibition, to acreage or time limitations, to reporting requirements similar to Federal legislation.

[Peter DeBraal (202) 219-0425]

Foreign-Owned Agricultural Land Is Concentrated in the West and South



As of December 31, 1991. Includes forest land.

sheds, and fruit juice processing facilities that would export their products to Japan.

U.S. import quotas for products like textiles also played a role in Japan's investment expansion. In bilateral trade, the U.S. exported cotton to Japan, and Japanese textile companies exported clothing back to the U.S. Now many Japanese companies avoid the quota by operating mills in the Southeastern U.S. and in California.

Japan's role as a food deficit country is the underpinning for another key difference between the EC and Japanese investment patterns—Japanese companies export many products from U.S. affiliates back to Japan. Imported food accounts for nearly half the calories in the Japanese diet, and much of the food produced in Japanese-owned food processing plants in the U.S. is for export to Japan. The following are examples:

- **Japanese-owned slaughterhouses** export 15-20 percent of their U.S. beef exports to Japan, mostly on Japanese-owned vessels. When the Japanese market for U.S. beef did not increase as rapidly as anticipated in 1990 because of large stocks of beef in Japan, some of the beef remained in the U.S.
- **Japanese-owned packinghouses** handle citrus and prunes that are exported to Japan.

World Agriculture & Trade

- **Japanese-owned fisheries** account for nearly 80 percent of the fisheries in Alaska, and process fish for export to Japanese consumers.
- **Japanese-owned grain storage facilities** in Montana and Louisiana handle U.S.-produced grain which is then shipped to Japan; Japanese trading companies based in Portland, Oregon and the Gulf states arrange shipping to Japan.

Japanese ethnic foods produced in the U.S. are also finding a larger market here. While some foods and beverages, like sake, a Japanese wine, are served primarily in Japanese restaurants, others are finding their way into mainstream markets. Nissin Foods, the original producer of ramen noodles in the U.S., accounts for 20 percent of the dried soups consumed in the U.S. Kikkoman, a large Japanese-based food processor, produces soy sauce and related condiments for the mainstream U.S. consumer market.

While most Japanese agribusiness investments in the U.S. are in food processing companies, supermarkets and restaurants are also among the investment outlets. In 1990, Japan's Ito-Yokado Corporation purchased a majority interest in Southland Corporation, the top convenience store chain in the U.S., and has also invested in smaller retail chains. Japanese companies have taken an active role in the restaurant and food-service industries, particularly those associated with airlines and hotels.

Most Japanese corporations have investments in existing U.S. plants, but appear to be more inclined than EC firms to invest in new industries and plants. The Japanese have built plants in the U.S. to produce ramen noodles, sake, TV dinners, soy sauces, and other Japanese food products, creating new jobs in the U.S. food industry.

U.S. Investments Open New Markets

U.S. investment in foreign agribusiness balances the investments of foreign companies here. U.S. investment in agribusi-

ness abroad measured \$46 billion in 1991, including \$17 billion in other countries' food industries, higher than the \$39 billion of foreign agribusiness investment in the U.S.

The U.S. has invested in agribusiness abroad for decades and is the world's largest foreign investor. In the food sector, many multinational processing companies expanded abroad to develop new markets for their products and to cut production costs. Campbell's Soup, Kellogg's, and General Mills are among the U.S.-owned food companies that expanded into foreign countries for these reasons.

The European Community is the largest host region for U.S. agribusiness investment abroad, and investment there stood at \$12 billion in 1990. The top EC countries for U.S. agribusiness investment are the UK and the Netherlands, parallel with the top investors here and reflecting the intertwined nature of U.S.-European investment. The leading countries for U.S. global agribusiness in 1990 were Canada (\$4.4 billion), the UK (\$3 billion), the Netherlands (\$2 billion), Japan

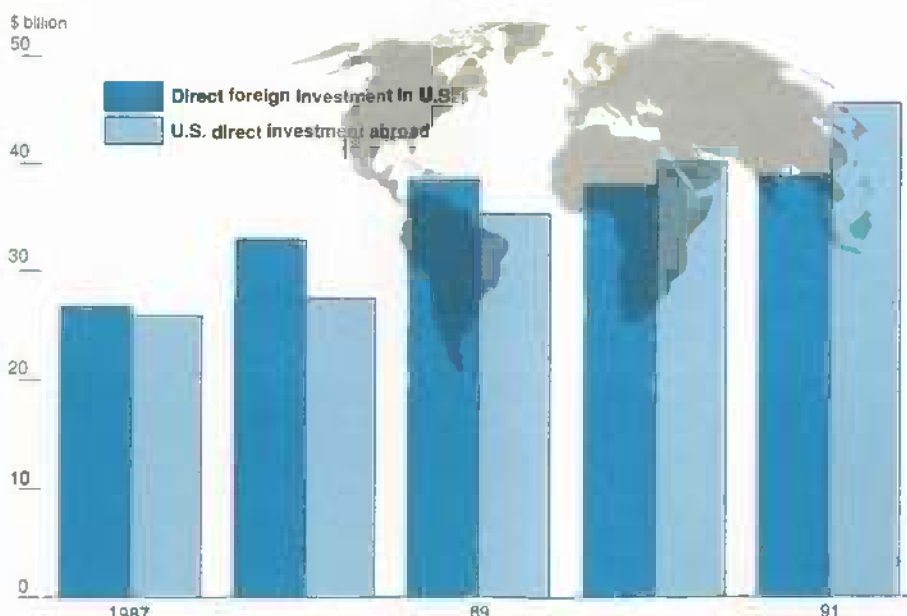
(\$1.9 billion), Australia (\$1.7 billion), Brazil (\$1.1 billion), and Mexico (\$1 billion).

A current trend in U.S. agribusiness investment abroad is the rapid expansion of U.S. fast-food chains around the world. McDonald's, for example, recently announced plans to open almost 1,000 new restaurants a year by 1994 or 1995, many in foreign countries. In 1990, McDonald's had 11,803 restaurants, 3,227 in other countries.

After stalling for many years, U.S. investment in Mexico's food industry has picked up. Mexico is now the seventh-largest host country for U.S. agribusiness investment. U.S. companies had invested in Mexico's agribusiness in the 1960's, but cut back sharply during the 1970's when the investment climate in Mexico became restrictive.

Mexico's privatization efforts benefited other sectors more than agribusiness. However, current liberalization of foreign investment laws since 1989 is encouraging U.S. agribusiness investment. Mexico's grain milling and beverage industries are major sectors receiving considerable U.S. investment.

U.S. Agribusiness Investment Abroad Slightly Exceeds Foreign Investment Here



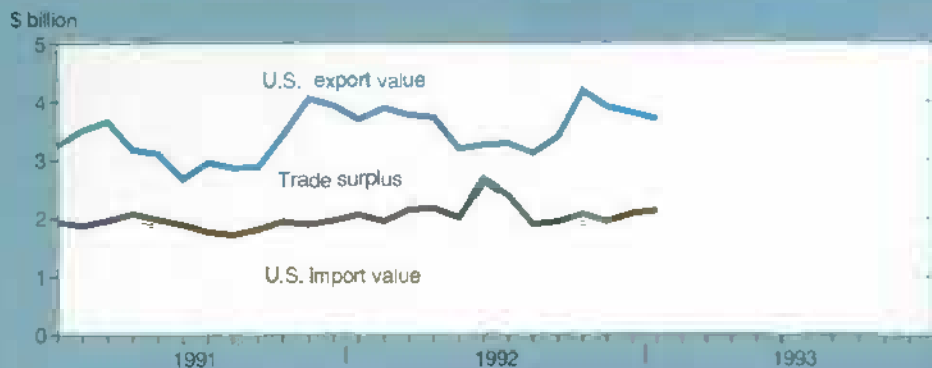
Excludes agricultural land.

Source: U.S. Department of Commerce, Survey of Current Business.

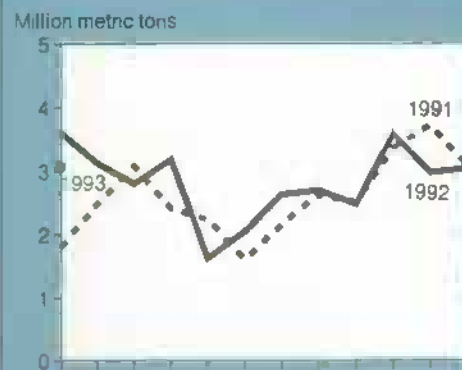
World Agriculture & Trade

U.S. Trade Indicators

U.S. agricultural trade balance



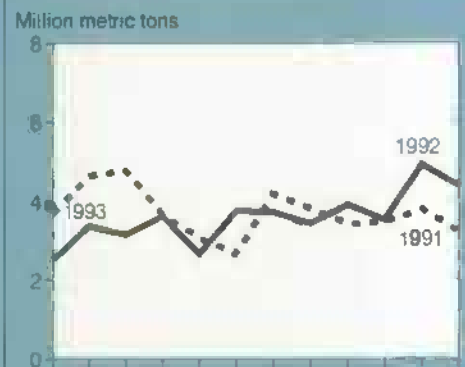
U.S. wheat exports



Export volume

Index of export prices¹

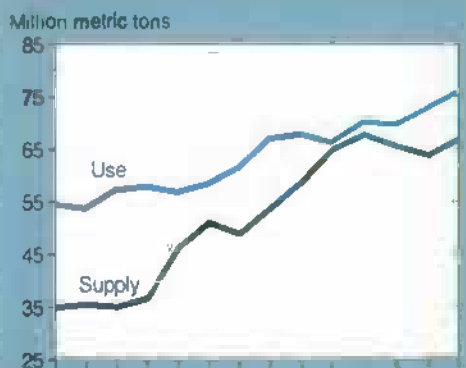
U.S. corn exports



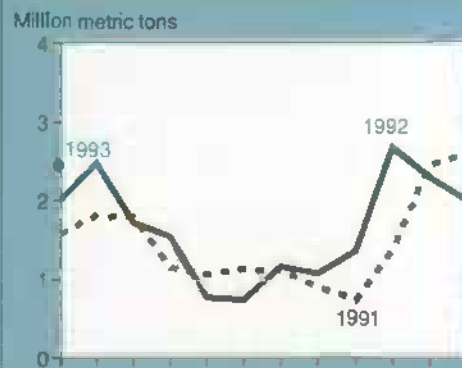
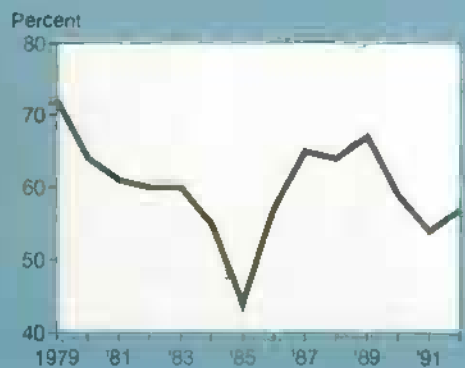
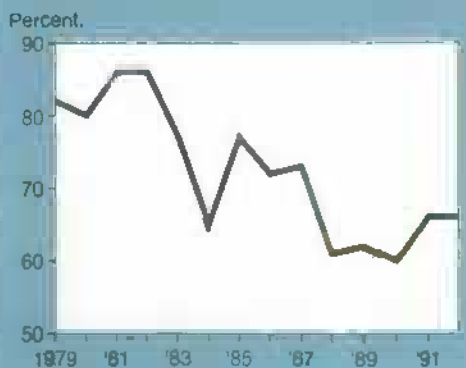
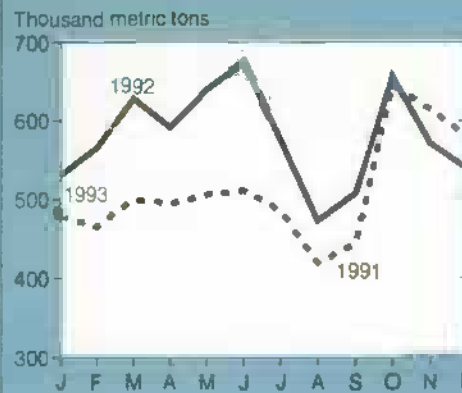
Foreign supply & use of coarse grains



Foreign supply & use of soybeans



U.S. soybean exports

U.S. share of world coarse grains exports^{2,3}U.S. share of world soybean exports^{2,3}U.S. fruit, nut & vegetable exports⁴

¹ 1993 data based on a 1990=100 index year. ² Excluding intra-EC trade. ³ October-September years. ⁴ Includes fruit juices.

World Agriculture & Trade

Farm Finance

The U.S. has also increased investment in Mexico's fresh tomato and other fresh vegetable industries as a means of extending the season for availability of these products to U.S. consumers, and to take advantage of lower land, labor, and water costs in Mexico. U.S. investors usually held a minority interest in land, or built packing sheds and provided harvesting, packing, cooling equipment, and boxes to Mexican growers under various contracting arrangements.

Global Expansion To Continue

High levels of EC and Japanese savings and high rates of return on investments in the U.S.—due to high interest rates and the dollar's depreciation—were key reasons the U.S. became a host country for foreign investment in the late 1980's. Many developed countries are now facing recession and Germany is investing heavily in its eastern states, while in the U.S., interest rates have dropped and attempts are being made to reduce the deficit. These changing macroeconomic conditions will likely curb the rate of foreign agribusiness investment in the U.S. during the 1990's.

However, U.S.-European agribusiness investment and two-way investments with other countries, especially in the food industry, are likely to become even more entrenched as consumers are exposed to an increasing variety of food products and services. From a global perspective, freer trade and investment permit a more efficient use of labor and capital resources, and can create jobs and provide capital in host countries.

[Chris Bolling (202) 219-0668] **AO**



Will Farm Interest Rates Change Course?

Farm interest rates are expected to continue their downward trend in the first half of 1993 before heading slightly upward in the second half and rising modestly in 1994.

In the first 6 months of 1993, low inflation, modest economic growth, and ongoing efforts to reduce the relative dependence on debt financing should moderate growth in money and credit demand and keep interest rates low in general. But further economic expansion later in the year and especially in 1994 will likely put slight upward pressure on interest rates, though they will remain low by recent historical standards.

For the year 1993, interest rates on farm loans are expected to be slightly below last year's. Favorable credit conditions in the U.S. economy have led to low interest rates for farm loans. Modest economic growth, excess capacity in labor and product markets, falling foreign interest rates, a recent drop in the demand for

money, and expectations of continued low inflation and of reduced government borrowing have put downward pressure on interest rates in general.

Between late January and late March 1993, long-term Treasury bond yields dropped to their lowest level since 1974, declining over 30 basis points (hundredths of a percent). Yields on short-term Treasury bills, which are below long-term rates, have been stable.

The fall in intermediate- and long-term interest rates has put downward pressure on farm loan rates by reducing the interest paid on funds deposited in commercial banks—the largest source of farm credit—and by reducing lenders' anticipated returns on alternative financial investments. Moreover, the falling interest rates, by making existing higher rate loans more valuable, have made more money available for lending.

Rates on short-term nonreal estate farm loans at commercial banks are likely to remain stable or fall slightly during the remainder of first-half 1993. With loan demand weak, commercial banks during the past few months reduced the interest they pay on short-term deposits of funds. The lower cost of funds has and will continue to lower the rates for short-term farm loans, especially at small banks. Rates for longer-term farm mortgages are expected to fall because of the lower cost of bank funds and because of lower returns on nonfarm long-term assets that compete with farm mortgages.

Many forecasters expect the interest rate picture to change slightly in late 1993 and into 1994, with continued economic expansion mildly pushing up interest rates. Farm loan rates may rise, but by less than half a percentage point. Most of the increase in interest rates is expected to be real, and not the result of inflation. When general interest rates rise, farm lenders' cost of funds and their returns on alternative investments rise, edging up rates to farm borrowers. And as bankers and regulators continue to be concerned about the quality of farm loans, lending premiums on low-grade or especially risky farm loans will likely remain high.

Farm Finance

Rates charged on farm loans by nonbank lenders—the Farm Credit System (FCS), life insurance companies, and individuals—are expected to move upward as well in second-half 1993 and in 1994. The FCS raises funds in the debt markets of the broader economy, and in order to pay operating expenses and generate returns for its stockholders, the FCS must earn market returns on its loans.

Likewise, returns earned on farm mortgage loans made by life insurance companies must be comparable to those earned on competing assets, such as common stocks and bonds, after adjusting for differences in risk. As nonagricultural asset returns rise, on a risk-adjusted basis, agricultural loan rates will follow.

Balancing Act: Asset vs. Liability Terms

A rise in market interest rates in an economic upturn would increase lenders' revenues from new loans, but it would also increase their costs. The ability to respond to new interest rates can take longer for one lender than for another, depending on the relative maturities of

their assets (for example, loans made) and liabilities (obligations to depositors or bond holders).

The maturities mix of a lender's assets and liabilities is critical to managing interest rate risk. When rates are expected to rise, lenders normally issue liabilities with maturities exceeding the average maturity of their assets. Lenders' costs—what they pay on liabilities—will then be locked in at the lower interest rates, and revenues will be adjusted upward when rates rise as predicted, old loans expire, and new loans are issued at higher rates. If rates decline instead of rise when lenders' liabilities are relatively long term, asset returns would decline more quickly than liability costs and lender profits would be squeezed.

According to a University of Illinois study, the average farm bank balances its interest-rate-sensitive assets and liabilities so that it is insulated from the risk of unanticipated changes in interest rates. In other words, the dollar value of the average farm bank's interest-sensitive liabilities equals that of its interest-sensitive assets. Assets and liabilities

that can either mature or be repriced during a particular time period are considered interest rate sensitive.

Loan pricing policies also vary from one farm lender to another. Small rural banks typically favor average-cost pricing, which bases loan rates to farmers on the average interest rate on a lender's total outstanding debt. Larger commercial banks have favored marginal-cost pricing, basing loan rates on the cost of new debt to lenders.

When rates decline, as they have recently, lenders that give greater weight to the marginal cost of funds are at an advantage. This helps explain why large commercial banks have been able to offer lower rates to farmers. If rates begin increasing in the second half of 1993, the spread between average-cost loan rates and marginal-cost rates will narrow. Average-cost lenders (smaller banks) should make more loans.

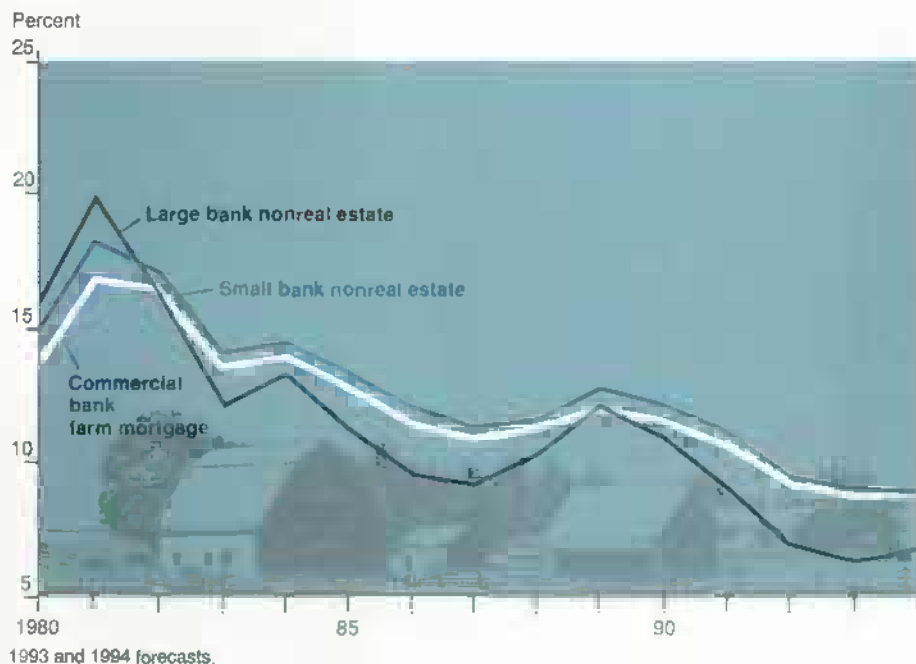
A Time To Borrow?

With farm interest rates still low compared with recent trends, but with a mild increase anticipated, borrowers may be considering whether to refinance existing debts. Refinancing may involve reducing the interest rate on a loan or shortening a loan term—from 30 to 15 years, for example. A reduced interest rate may mean smaller loan payments to a farm borrower; a shorter loan term would allow a borrower to build equity more rapidly and thus decrease total interest paid on a loan.

Despite current favorable interest rates, farm borrowers face several obstacles to refinancing. Among them are the possibility of a decline in real estate values since the loan was originally made, tax considerations, attorney's fees, appraisal and loan application fees, and closing charges.

Some farm borrowers might consider switching from variable- to fixed-rate loans. Traditional long-term fixed-rate loans place the risk of rising interest rates on lenders while giving farmers the option of refinancing if interest rates decline. Variable-rate loans shift the risk of unanticipated rises in interest rates

Farm Interest Rates Reach a 10-year Low in 1993



Farm Finance

from the lender to the farmer, through periodic changes in the loan's rate to reflect movements in market interest rates. Not all of the risk of rising interest rates is borne by farmers, since variable-rate loans increase the possibility of farmer default when interest rates move up. Farmers who opt for variable rate loans may also consider an interest rate cap.

Farmers considering expanding their operations should note that farmland prices generally move in the opposite direction of interest rates. This is because assets such as farmland decline if the future income that could be earned on them is discounted by higher interest rates.

For farmers who borrow in order to finance the purchase of machinery and other assets essential to farm production, interest expenses are a significant share of total cost. With interest rates expected to increase, raising the cost of borrowing capital to finance farm assets, farmers may benefit by financing purchases now rather than later. Farmers making borrowing decisions in this period will also be considering their expectations of income, as well as possible changes in investment tax credits.

[Ted Covey (202) 219-0892 and Paul Sundell (202) 219-0782] **AO**



Environment & Resources



Ag Chem Equipment

Impacts of Delaney Clause Court Ruling

A recent Supreme Court decision could affect the use of four pesticides which are specified in the ruling. The U.S. Environmental Protection Agency (EPA) announced that the use of at least 28 more pesticides, many of which are commonly applied in agricultural production, also could be affected by the decision. The February ruling confirmed that the Delaney Clause, which requires a zero-risk standard for carcinogenic pesticides that concentrate during processing, must be interpreted literally. Under the ruling, EPA would have to forbid use and distribution of such chemicals.

The Delaney Clause, contained in the Federal Food, Drug, and Cosmetic Act (FDCA), is among the Federal laws governing EPA's approval of applications for pesticide registration. Much of the legislation invoked by EPA in regulating pesticides provides for weighing economic benefits of pesticides against their health and environmental risks. Carcinogenic pesticides—those found to cause

cancer in humans or animals—may be registered for most uses if the benefits are substantial and the risks negligible. But the Delaney Clause requires that a certain group of carcinogenic pesticides—those that concentrate during processing—must meet a zero-risk standard.

The lawsuit that led to the recent court decision was prompted by EPA's October 1988 announcement that it interprets the Delaney Clause as permitting a negligible-risk (*de minimis*) rather than a zero-risk standard. In effect, EPA announced that it could allow very small cancer risks, instead of removing all possibility of cancer risk from exposure to pesticides. The announcement came on the heels of an EPA-commissioned report on the Delaney Clause by the National Academy of Sciences, indicating that the use of a consistent, negligible-risk standard for both raw and processed foods could reduce dietary risk from pesticide residues.

EPA's application of the *de minimis* exception to the Delaney Clause was challenged in court by the state of California, the Natural Resources Defense Council, Public Citizen, the AFL-CIO, and several individuals. In July 1992 the 9th Circuit Court of Appeals upheld the challenge. Two months later, the court denied a Justice Department petition for a rehearing. In February 1993, the U.S. Supreme Court declined to review the Court of Appeals ruling.

The Supreme Court decision implies that many uses of the 32 chemicals in question could become illegal. Registration could be revoked on additional chemicals if new and more powerful scientific studies detect carcinogenicity.

The only remaining avenue for EPA to implement a negligible-risk standard is through a change in Federal law. In the previous Congress—the 102nd—several bills were introduced which would apply consistent and negligible-risk standards to all pesticides, including those that are cancer-causing and that concentrate. None of these bills was adopted, but two have been reintroduced in the 103rd Congress.

Environment & Resources

Which Crops Could Be Affected by Delaney Ruling?

EPA identified the following list of crops and pesticides on February 2, 1993 as potentially affected by a strict interpretation of the Delaney Clause. The release of the list does not affect the regulatory status of any of the pesticides or uses listed.

Commodity	Pesticide	Type*	Commodity	Pesticide	Type*
Apples	Metiram	F	Pineapple	Triadimelon	F
	Maneb	F			
	Captan	F	Plums	Captan	F
	Mancozeb	F		Propargite	M
	Thiophanate-methyl	F	Potatoes	Chlorothalonil	F
	Triadimelon	F		PCNB	F
	Benomyl	F		Linuron	H
	Oxyfluorfen	H	Rice	Benomyl	F
	Dimethoate	I			
	Dicofol	I/M	Rye	Mancozeb	F
Propargite	M				
Barley	Triadimelon	F	Sorghum	Alachlor	H
	Mancozeb	F			
	Dicamba	H	Soybeans	Oxyfluorfen	H
		Alachlor		H	
Citrus	Benomyl	F		Chlorothalonil	F
	Norflurazon	H		Acephate	I
	Phosmet	I	Spearmint	Trifluralin	H
	Dimethoate	I		Oxyfluorfen	H
	Methidathion	I	Sugarbeets	Metiram	F
	Dicofol	I/M		Mancozeb	F
	Propargite	M		Maneb	F
Corn	Captan	F	Sugarcane	Atrazine	H
Cotton	Oxyfluorfen	H		Hexazinone	H
	Dimethipin	HGR		Simazine	H
	Phosmet	I		Asulam	H
	Acephate	I			
Figs	Propargite	M	Sunflowerseed	Alachlor	H
Grapes	Benomyl	F	Tomatoes	Captan	F
	Mancozeb	F		PCNB	F
	Triadimelon	F		Benomyl	F
	Captan	F		Lindane	I
	Maneb	F		Permethrin	I
	Dicofol	I/M	Wheat	Triadimelon	F
	Propargite	M		Mancozeb	F
		Dicamba		H	
		Methomyl		I	
Hops	Propargite	M	Uses on raw commodities which are mainly imported:		
Millet	Dicamba	H	Whole spices	Ethylene Oxide	B
			Copra	ethylene Oxide	B
Oats	Mancozeb	F	Black walnut meats	ethylene Oxide	B
	Dicamba	H	Tea	propargite	M
Peanuts	Alachlor	H	Uses on processed commodities which have no associated raw commodity:		
	Metolachlor	H	Packaged foods	Dichlorvos	I
Peppermint	Trifluralin	H	Dried tea	Dicofol	I/M
	Oxyfluorfen	H	Dried hops	Methomyl	I/M

*B = Bactericides, F = Fungicide, H = Herbicide, I = Insecticide, M = Miticide, HGR = Harvest Growth regulator.

Fresh & Processed Foods: The Policy of Linkage

Before a pesticide can be used in the U.S., it must be registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the principal legislation governing pesticides. Registrations prescribe conditions for pesticide use: sites (such as specific crops or livestock) on which pesticides can be applied; methods of use; and locations of use (such as distance from rivers and streams).

While FIFRA and its amendments are environmental laws, legislation addressing the safety of the food supply also influences pesticide registrations. The 1954 Miller Amendment to the Federal Food, Drug, and Cosmetic Act requires that a maximum permissible level (tolerance) be established for pesticide residues in foods and animal feed.

In 1958, Congress enacted the Food Additives Amendment to the FDCA to regulate pesticide residues in processed foods. The amendment requires that if a pesticide residue in a processed food exceeds a tolerance established for the raw commodity, a tolerance must be established for the pesticide in the processed food as well.

These statutory provisions have remained essentially unchanged, and EPA is responsible for establishing tolerances under FDCA. FIFRA and FDCA are linked because EPA will not approve an application for registration until tolerances are established. Since the 1972 FIFRA amendments, both FIFRA and most provisions of FDCA have provided for weighing economic benefits of pesticides against their health and environmental risks.

However, the Delaney Clause of FDCA, named after its principal Congressional sponsor, flatly prohibits any food additive that has been found to induce cancer in humans or animals, no matter how small the risk. A key application of the Delaney Clause occurs when a raw agricultural product contains residues of a

pesticide that concentrates during processing. If the concentrating pesticide is cancer-causing to any extent, the Delaney Clause prohibits its use at any level.

Complicating the picture is EPA's unwillingness to grant a tolerance for pesticides on a raw product when it is unable to grant a tolerance for the processed product. EPA's uncertainty on whether a raw product will be processed has magnified the scope of the Delaney Clause—as many raw products are simply assumed to be destined for processing.

Several groups representing producers and food processors have challenged the linkage between tolerances on raw and processed commodities. The groups include the National Food Processors Association, the United Fresh Fruit and Vegetable Association, the Florida Fruit and Vegetable Association, the Northwest Horticultural Council, and the Western Growers Association.

If the petition is successful, cancellation of tolerances for residues on processed products would not automatically lead to cancellation of tolerances for the corresponding raw commodities. This would significantly limit the impact of enforcing a literal interpretation of the Delaney Clause. For example, if the linkage policy is reversed, the cancellation of tolerances of several fungicides used in raisin production would not necessarily affect the fresh grape market.

Delaney Chemicals Critical for Some Crops. . .

EPA indicates that 32 pesticides could have some registrations canceled as a result of the recent court decision. Since EPA's current policy links raw and processed food tolerances, the list includes some pesticide registrations for raw commodities which would be canceled if the associated processed commodity tolerances were canceled. Commodities affected include 29 raw agricultural commodities, 4 of which are mainly imported. In addition, three uses could be banned which have no associated raw agricultural commodity tolerance.

Delaney Clause chemicals are registered for use on a wide variety of fruit, vegetable, specialty, and field crops. Many of these crops either do not rely heavily on Delaney chemicals for production or have effective pest control substitutes available, and will be little affected by the loss of Delaney Clause chemicals. But for crops whose production depends heavily on the availability of Delaney Clause chemicals, the markets could be seriously affected by this decision.

The production of hops, for example, could be seriously affected by the Delaney Clause ruling. Loss of a single pesticide, propargite, could reduce production 59 percent and reduce product quality substantially, according to a 1992 USDA economic impact study. Enforcing the Delaney Clause could reduce profitability of hops production so that many growers would be unable to continue their current operations.

Regional differences in pest problems will exacerbate the unequal mix of benefits and costs across the agricultural sector. Farmers facing few pest problems, and therefore with few reasons to use the pesticides on the Delaney Clause list, will not lose as much as those with frequent and severe pest problems.

Eastern apple production, for example, exists now largely because fungicides have been developed to minimize disease losses. A 1991 USDA study of fungicide benefits concluded that apple production in the eastern states would not be commercially viable without fungicides because several uncontrolled diseases could each cause yield losses approaching 90 percent. The Delaney Clause list of possible registration cancellations includes the commonly used fungicides. One of these fungicides, Captan, is used on over 90 percent of the apple acreage in the eastern states, and most Captan alternatives are also on the list. Since eastern states account for over 40 percent of U.S. production, yield reductions in these states could significantly increase prices to consumers.

Environment & Resources

Production losses are likely to continue for many years, until new technologies for pest control are researched, developed, marketed, and successfully adopted by apple farmers. Thus, enforcement of the Delaney Clause could affect more than current apple production. The asset values of eastern apple farms could fall. Most of the value of these farms is in the orchards, which take many years to reach full productivity; the rural land underneath the orchards is not the main source of farm value. As pest pressure diminishes productivity, the value of the capital in orchards will fall.

Complicating the regional disparity of impacts, some farmers may benefit if their competition in other regions loses crops to pests. In the western states, farmers only infrequently apply fungicide treatments, and do not use many of the fungicides on the Delaney Clause list. Thus, western apple producers are likely to benefit from the price increase resulting from eastern apple producers' yield losses.

... But Impacts Would Be Negligible for Others

For many crops, the aggregate impacts are likely to be negligible. When there is no evidence that farmers use the pesticides on the Delaney Clause list, it is likely other pesticides are less expensive or provide more effective pest control. If application of the Delaney Clause cancels pesticide registrations for sorghum, soybeans, sugarbeets, sunflowers, rye, tomatoes, figs, rice, and wheat, the impacts on farmers will likely be uniformly small, because the pesticides either are

not used or are used on very small acreage. Impacts on consumers will therefore be almost zero.

Whether farmers' losses are significant or negligible in the aggregate is a matter of perspective. A recent USDA study of pesticide regulations indicates that enforcing the Delaney Clause will reduce cotton farmers' income \$30 million. Among the impacts of the four cotton pesticide registrations that could be canceled, loss of the insecticide acephate is estimated to reduce farmers' income by \$28 million, and loss of the growth regulator dimethipin would reduce income \$2 million.

Given the size of the cotton industry, with sales of \$5.8 billion in 1990, a \$30-million loss is not likely to change the incentives to produce cotton. However, the \$51 million hops producers could lose is equivalent to about 60 percent of the farm value of production.

Even widespread use of Delaney Clause chemicals does not necessarily imply that significant economic dislocations will follow registration cancellation. For example, almost all corn seed is treated with the fungicide Captan. However, plant pathologists have reported that alternate pesticide treatments for corn are equally effective. Seed treatments require so little of the pesticide that even if the alternatives were 25 percent higher in price, corn and soybean prices would move no more than 3 cents per bushel, according to a 1986 study by USDA's Economic Research Service. The result that could occur is that some farmers would have to change seed handling practices to prevent contact dermatitis.

Uncertainties Remain

The economic effects on some crops—grapes, citrus, barley, mint, oats, plums, and potatoes—are uncertain. An uneven pattern of regional costs and benefits will likely result for some of these commodities, if pesticides on the Delaney Clause list lose registrations.

Also, crop losses and resulting rises in food and fiber prices associated with the loss of Delaney Clause chemicals will affect consumers. A legitimate question is whether consumers are buying increased safety through pesticide regulations and whether the protection matches the cost.

Whether consumers enjoy net benefits from banning a low-risk carcinogenic pesticide depends on which pest control measures farmers substitute. The Delaney Clause forces regulators to make decisions based on only one type of risk raised by pesticide use, ignoring, for example, issues of acute toxicity, birth defects, farmworker safety, and environmental damage. This raises the possibility that substitute pesticides will cause other hazards and a net decrease in safety.

In addition, strict interpretation of the Delaney Clause raises an uncertainty for international trade. The zero-risk interpretation of Delaney may be inconsistent with the developing system of global pesticide standards under the General Agreement on Tariffs and Trade.

[Fred Kuchler and Katherine Ralston
(202) 219-0462] **AO**

New from USDA's Economic Research Service

CALL-ERS

CALL-ERS is a new electronic bulletin board service available free to users of ERS information and data. Use **CALL-ERS** to:

- Download timely situation and outlook summaries
- Download selected situation and outlook tables as electronic spreadsheets.
- Download samples of electronic data products.
- Stay informed about new reports and data products from ERS.



Shop our on-line catalog for periodicals, reports, videos, and data products.

CALL-ERS supports 1200 and 2400 baud communications (N,8,1) on 1-800-821-6229 and 1-202-219-0377.

Call from your computer today!

Special Article



Produce Marketing & Distribution in Mexico

Shoppers and traders stepping into Mexico City's Central de Abastos enter one of the world's largest wholesale markets in one of its most populous, fastest growing cities. Kiwis, apples, and a variety of other imports are among the 137 types of fruits and vegetables sold in this massive, modern facility. The broad selection of produce items, including the wide array of imported fruits and vegetables, mirrors fundamental changes in Mexico's economy and population, as well as greater access for U.S. produce exports and investment.

Following Mexico's severe economic crisis in the early 1980's, the government has attempted to improve agricultural incentives, reform public-sector agricultural operations, and foster conditions for sustained agricultural growth. Government agricultural enterprises—in crop production, marketing, irrigation, seeds, and finance—have been privatized or restructured through a process of mergers, liquidation, and sales. The reforms, still in progress, have already helped generate a strong economic recovery and have stimulated private investment in agricultural production, including the fruit and vegetable industry.

Mexico's population, 89 million in 1992, has been growing rapidly for decades, and is concentrated increasingly in Mexico City, Guadalajara, Monterrey, and other large cities. Over a quarter of the country's population resides in Mexico City alone. Population growth in Mexico has recently slowed to about 2 percent annually, but is still higher than in most other countries. More than 70 percent of Mexicans live in urban

areas now, about the same proportion as in the U.S., but up from barely over half the population in 1960. Mexico's population will likely surpass U.S. concentration in urban areas by the close of the century.

Large population growth in Mexico is contributing to rapid rise in food demand, and higher incomes are leading to shifts in consumer preferences. Mexican consumers are beginning to favor higher valued products like meats, milk, fruits, and vegetables over grains and starchy commodities. Also, increasing migration from rural areas to cities is elevating the demand for food. The resulting increases in food demand also increase the need for marketing services such as transportation, processing, storage, and packaging.

Food marketing is particularly important in Mexico because households on average spend over 54 percent of their total budgets on food. Lower income groups, which are concentrated in rural areas, spend nearly 66 percent of their budget on food, while upper income groups, which tend to be located in the urban areas, spend less than 30 percent. Fruits and vegetables account for about 20 percent of total consumer food expenditures. High-income consumers spend almost three times more than low-income consumers on horticultural products.

Mexico is the leading foreign supplier of fruits and vegetables to the U.S., and provides over 4 percent of the world's horticultural exports. Mexican and U.S. produce-growing seasons are countercyclical, and the U.S. has long relied on Mexico for off-season fruits and vegetables. Recent government reforms like abolishing import licenses in Mexico have led to increased imports from the U.S., especially apples, pears, and other deciduous fruits.

Produce Area & Yields: Decades of Growth

After three decades of steady growth, production of fruits and vegetables accelerated recently in Mexico, and now accounts for about 20 percent of total crop value. Gains were made despite Mexican farm policy which, until recently, used price supports and direct credit to promote production of major crops (grains, oilseeds, sugarcane, and cotton) which compete with vegetables for land area.

Six produce items—tomatoes, potatoes, peppers, onions, bananas, and oranges—currently account for over 90 percent of the total fruit and vegetable production in Mexico. Between 1970 and 1991, Mexico doubled or quadrupled production of these commodities, destined for both the domestic and export market. Cauliflower and broccoli production grew even faster (about 900 and 1,100 percent), mostly in response to U.S. demand, and with the aid of U.S. production technology.

Area and yield increases have both contributed to increased fruit and vegetable production in Mexico. Greater use of irrigation has been the key to yield increases, particularly in Mexico's Pacific northwest, where vegetable areas have developed

almost exclusively for the export market. Irrigation is now used for about 62 percent of the vegetable crop and 42 percent of the fruit crop.

While Mexico harvests and markets many horticultural crops throughout the year, over 82 percent is harvested from October through May, when U.S. demand for winter fresh vegetables is high. This reflects a wider marketing window than a decade ago, when about 78 percent of the horticultural crop was harvested between January and March.

A Handful of Growers Control the Export Market

Mexico's land tenure system influences the production and marketing of fruits and vegetables and other agricultural products. Mexico has three types of landownership.

- **Private landowners** are categorized as large and small landowners.

Large-scale producers usually have farms of 750 to 3,500 acres, and control much of the horticultural production in Mexico. These farms usually exceed the maximum allowed by Mexican legislation, which sets a maximum holding level according to the type of land and its carrying capacity, the types of crops raised, and the number of livestock held. Large-scale farmers often have combined several legally distinct ownership units, usually registered to various members of a single extended family, or have formed partnerships with other growers for harvesting and marketing their produce. They tend to be vertically inte-

grated into marketing and distribution, concentrated in the Pacific north and Gulf regions, and their production export-oriented.

Small-scale producers operate farms of roughly 10-250 acres, and generally combine into cooperative units for production and marketing activities. Geographically, they are concentrated in the central and southern regions, which include Puebla, Tlaxcala, Morelos, and Hidalgo.

- **Communal land** is worked by peasant farmers or *ejidatarios*. Most ejidatarios work individually and receive their profits directly. However, several areas are being used for a collective system of ejidos, generally farmed by 5 to 10 families on 25 to 75 acres of land.
- **Public land** belongs to the government.

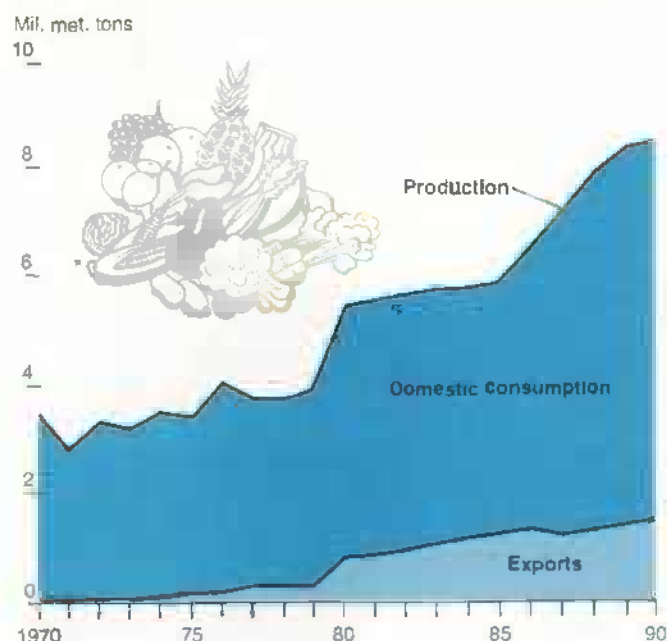
About 22 percent of all growers participate in the export market. About 50 foreign companies and a similar number of Mexican companies, in many cases associated with the former, control the majority of the exports. Most of Mexico's 100,000 horticultural growers are small-scale producers, ejidatarios, or tenant farmers, and most produce for the domestic market.

Production of horticultural crops for the export market is concentrated in the north, because of the availability of irrigated land, lower transportation and shipping costs to the U.S., and higher shipping costs to the Mexican markets. Sinaloa produced almost half of Mexico's horticultural exports in 1990. Sonora was the second-largest exporting state, with 14 percent of total horticultural exports, followed by Baja California (12 percent), Tamaulipas (7 percent), Michoacán (5 percent), and Jalisco (4 percent).

Sinaloa has an extensive river-reservoir system, and vegetables are intensively produced under irrigation in its river valleys (Culiacán, Guasave, and Los Mochis). Tomatoes and peppers are grown in all of these regions, and cucumbers, beans, and squash are produced in most. Sonora, once the leading area for vegetable exports, remains an important producer of these crops as well. Baja California became an important tomato area in the early 1980's and, like Sinaloa, uses current California production technology and advanced, large-volume packinghouses and gassing facilities.

Mexican exports of horticultural products to the U.S. increased from \$500 to \$600 million in the early 1980's to \$1.1 billion in 1992. Fruits and fresh and processed vegetables are among Mexico's top agricultural exports to the U.S. Fresh vegetables accounted for 47 percent of the horticultural exports in 1992, and fresh tomatoes were the leading vegetable export.

Export Share of Mexico's Fruit and Vegetable Output Is Still Small






Marketing System Is Segmented

The domestic fruit and vegetable marketing structure in Mexico has two segments: a modern subsector serving large-scale producers, and the traditional marketing subsector with small-scale producers. The large-scale growers account for over two-thirds of the commercial fruit output in Mexico, and half the vegetable production. They also provide the bulk of produce marketed for export. Large-scale producers are very well organized in terms of harvesting, packing, sorting, and selling. These growers sell their export-market produce through the producers' association (CNPH), and their domestic-market produce through wholesalers at terminal markets, to large retail chains, directly to supermarkets, or on consignment with brokers.

Grading, packaging, and handling procedures of small-scale domestic producers are less advanced than those of exporters. Their lack of modern packinghouses and streamlined marketing procedures results in production loss and damage, and low prices. For example, oranges, cucumbers, plantains, and cabbage, shipped in bulk without crates or special handling, arrive at markets with substantial product damage and loss. While tomatoes are shipped in wooden crates, there is no sorting by size and ripeness, and overloading of containers is common. These losses are reflected in higher marketing costs for the traditional small-scale producer.

Domestic Produce Market: Something Old, Something New

Mexican consumers typically follow traditional shopping patterns and purchase produce daily. This preference is reflected in the large number of street markets and small grocery shops compared with the U.S., and in the practice of purchasing riper produce. Most produce is sold through 20 major wholesale markets in urban areas. Several of these markets have been constructed or redesigned during the last 10 years in an attempt to modernize Mexico's marketing system.

-  Top exporting states
-  Top domestic market states
-  Major wholesale markets



The largest wholesale market, Central de Abastos in Mexico City, was also one of the first ones built. Central de Abastos covers nearly 1,000 acres, dwarfing the old central market—La Merced—which still operates in Mexico's historic district. The modern integrated wholesale market was designed to meet the food marketing needs of a city which daily consumes 2,937 metric tons of tomatoes, 1,875 tons of oranges, 1,500 tons of bananas, 1,000 tons of potatoes, 675 tons of apples, 875 tons of melons, and 750 tons of lemons.

About 40 percent of national fruit and vegetable production and 80 percent of the produce marketed in Mexico City goes through the Central de Abastos. This market has over 3,500 affiliated wholesalers, with a total of 1,699 stands for produce, and storage capacity of 100,000 tons per day. Fruits and vegetables account for over one-third of total marketing within this wholesale outlet. While over 100 produce items are sold in the Central de Abastos, 9 basic items—tomatoes, onions, potatoes, chiles, carrots, plantains, oranges, lemons, and papayas—account for 60 percent of the volume.

Some of the wholesalers at the Central de Abastos are also large-scale producers, usually specializing in a limited number of commodities. In 1990, 99 wholesalers (6 percent) marketed 63 percent of the produce received at the Central de Abastos. About 72 percent of the trade in peppers was controlled by only four wholesalers that year, and about 43 percent of the onion trade was controlled by three wholesalers.

Another level of produce wholesalers, handling a broader line of products, distributes the produce to the diverse, small-scale, urban retailers in Mexico City. While most of the retailing is through these small-scale outlets—public retail markets, traditional neighborhood grocery stores, mobile street markets, and restaurants—supermarkets recently increased their share to about 20 percent, and mostly serve the upper-income niche market. About 86 percent of produce sold in the Central de Abastos in 1990 was distributed in the city, and the rest was re-shipped to the states of Mexico, Veracruz, Puebla, and Guerrero.

National Marketing Information Service reports daily on prices, volumes, and descriptions (including varieties, point of origin, quality, and pack) of 77 fruits and 63 vegetables through an electronic network, and in newspapers. Ideally, this would allow wholesalers to compare prices for similar produce in different markets. However, because of differences in grading and packaging, the pricing system's usefulness is limited. A government agency (SNIM) was created in 1985 to improve the transparency of the transactions, and covers all 20 major wholesale markets in Mexico.

Mexican producers receive 25 to 30 percent of the consumer price for fruits and vegetables, and the rest is divided among retailers (accounting for 26 to 40 percent), wholesalers (10 to 14 percent), and transportation and handling (5 to 14 percent). The marketing margins for fruits and vegetables reflect considerable product loss, which tends to be higher at the retail level for perishable products such as tomatoes and bananas, and higher at

the wholesale level for oranges and potatoes and other less perishable items.

Prior to Mexico's 1989 economic reform, several government agencies were involved in produce marketing and distribution. The government fruit production and marketing company (National Commission for Fruit Crops—CONAFRUT), which ran a collection and packing center, was privatized in 1989.

The National Confederation of Horticultural Producers (CNPH), is an export-oriented grower group that has had indirect effects on the domestic market, where nonexport quality and surplus products are sold. Until recently, CNPH monitored the export and domestic market and regulated planted acreage in an effort to boost prices for producers. In the past, CNPH granted certificates of origin to exporters, which guaranteed that CNPH could control the volume of individual producers. In 1991, the Mexican government relinquished CNPH's power to grant these certificates, and CNPH now has little influence on grower members.

U.S. Exporters Reaping Opportunities

Mexico's private investment in its agricultural sector is expected to increase during the 1990's as more investment funds become available, and should help offset the effects of reduced government subsidies. Investment in advanced technology and irrigation should gradually improve yields of domestic-market horticultural production, where productivity has lagged. Also, Mexico's rising incomes and increasingly urban population are boosting demand for processed fruits and vegetables, and for marketing services which improve product quality.

Changing producer incentives are also gradually shifting Mexican agriculture from traditional crops, like corn and beans, toward higher value crops like fruits and vegetables. In Sinaloa, for example, horticultural production is expected to increase in the 1990's as additional irrigation reservoirs come into operation and domestic and export demand expands.

U.S. sales of horticultural products are benefiting from Mexican trade reforms, and from the trade liberalization that has occurred in anticipation of the North American Free Trade Agreement. The U.S. is the largest supplier of deciduous fruit to Mexican markets. The value of imports of U.S. apples have jumped from \$4.8 million in 1989 to \$12.1 million in 1991. The value of pear imports from the U.S. has almost doubled since 1989, to \$14 million in 1991.

U.S. imports of grapes, peaches, tomatoes, celery, cauliflower, and lettuce, as well as deciduous fruit, have been accelerating in the last couple of years. U.S. investors are acquiring stands and taking their places alongside other traders in the warehouses at the Central de Abastos in Mexico City. Trade liberalization will be the major influence on Mexican horticultural imports for the next decade.

[Constanza Valdes (202) 219-0689] AO

Statistical Indicators

Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1992					1993			
	I	II	III	IV	Annual	I F	II F	III F	Annual F
Prices received by farmers (1977=100)	142	141	138	137	140	140	—	—	—
Livestock & products	154	157	159	157	157	162	—	—	—
Crops	129	123	117	117	121	117	—	—	—
Prices paid by farmers, (1977=100)									
Production items	172	174	175	175	174	176	—	—	—
Commodities & services, interest, taxes, & wages	190	191	192	192	191	193	—	—	—
Cash receipts (\$ bil.) 1/	168	171	175	—	—	—	—	—	—
Livestock (\$ bil.)	84	88	85	—	—	—	—	—	—
Crops (\$ bil.)	82	85	90	—	—	—	—	—	—
Market basket (1982-84=100)									
Retail cost	138	138	138	139	138	—	—	—	—
Farm value	102	103	104	104	103	—	—	—	—
Spread	157	157	157	158	157	—	—	—	—
Farm value/retail cost (%)	28	26	26	26	26	—	—	—	—
Retail prices (1982-84=100)									
Food	138	138	138	139	138	140	—	—	—
At home	137	137	137	137	137	139	—	—	—
Away from home	140	140	141	142	141	143	—	—	—
Agricultural exports (\$ bil.) 2/	11.3	10.1	9.7	11.8	42.4	11.6	10.3	8.8	42.5
Agricultural imports (\$ bil.) 2/	6.1	6.2	6.2	6.1	24.3	6.2	6.3	5.9	24.5
Commercial production									
Red meat (mil. lb.)	10,089	9,915	10,408	10,379	40,795	9,748	10,102	10,552	41,058
Poultry (mil. lb.)	8,314	8,624	8,816	8,644	28,398	8,530	8,895	7,000	27,230
Eggs (mil. doz.)	1,484	1,454	1,464	1,501	5,883	1,465	1,470	1,480	5,925
Milk (bil. lb.)	38.0	39.1	37.5	37.2	151.7	37.9	39.3	37.0	151.4
Consumption, per capita									
Red meat and poultry (lb.)	50.7	51.4	52.8	53.7	208.7	50.1	51.7	53.1	209.5
Corn beginning stocks (mil. bu.) 3/	1,621.2	8,541.1	4,561.0	2,738.6	—	1,100.3	7,906.4	5,678.6	—
Corn use (mil. bu.) 3/	2,462.1	1,984.5	1,827.8	1,641.6	7,916.1	2,674.1	2,228.3	—	8,395.0
Prices 4/									
Choice steers—Neb. Direct (\$/cwt)	75.77	75.94	73.88	75.88	75.36	80.85	74-80	70-76	74-78
Barrows & gilts—IA, So. MN (\$/cwt)	39.55	45.70	44.39	42.48	43.03	44.92	45-51	43-49	43-47
Broilers—12-city (cts./lb.)	50.2	52.3	54.5	53.3	52.6	53.1	50-56	52-58	51-55
Eggs—NY gr. A large (cts./doz.)	83.8	62.0	64.5	71.4	65.4	75.5	69-75	70-76	72-76
Milk—all at plant (\$/cwt)	12.97	12.87	13.47	13.10	13.10	12.30	12.35-13.35	13.05-14.05	12.45-13.25
Wheat—KC HRW ordinary (\$/bu.)	4.50	3.94	3.45	3.73	3.91	—	—	—	—
Corn—Chicago (\$/bu.)	2.86	2.59	2.26	2.12	2.41	—	—	—	—
Soybeans—Chicago (\$/bu.)	5.75	5.93	5.51	5.52	5.68	—	—	—	—
Cotton—Avg. spot 41-34 (cts./lb.)	51.4	56.4	57.3	50.4	53.9	—	—	—	—
	1985	1986	1987	1988	1989	1990	1991	1992	1993 F
Gross cash income (\$ bil.)	157.9	152.8	165.2	172.7	180.2	186.4	183.2	184	183-191
Gross cash expenses (\$ bil.)	110.7	105.0	109.4	114.6	121.2	125.2	125.2	126	123-129
Net cash income (\$ bil.)	47.1	47.8	55.6	58.1	58.9	61.3	58.0	59	58-64
Net farm income (\$ bil.)	28.8	31.0	39.7	41.1	49.9	51.0	44.6	50	43-49
Farm real estate values 5/									
Nominal (\$ per acre)	713	640	599	632	661	668	681	685	—
Real (1982 \$)	657	568	518	530	633	517	506	491	—

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.-Sept. fiscal years ending with year indicated. 3/ Sept.-Nov. first quarter; Dec.-Feb. second quarter; Mar.-May third quarter; Jun.-Aug. fourth quarter; Sept.-Aug. annual. Use includes exports & domestic disappearance. 4/ Simple averages, Jan.-Dec. 5/ 1990-92 values as of January 1. 1986-89 values as of February 1. 1984-85 values as of April 1. F = forecast, — = not available.

U.S. & Foreign Economic Data

Table 2.—U.S. Gross Domestic Product & Related Data

	Annual			1991	1992			
	1990	1991	1992	IV	I	II	III	IV/R
\$ billion (quarterly data seasonally adjusted at annual rates)								
Gross domestic product	5,522.2	5,677.5	5,950.7	5,753.3	5,840.2	5,902.2	5,978.5	6,081.8
Gross national product	5,542.9	5,694.9	5,961.9	5,764.1	5,859.8	5,909.3	5,992.0	6,086.8
Personal consumption expenditures	3,748.4	3,887.7	4,095.8	3,942.9	4,022.8	4,057.1	4,108.7	4,194.8
Durable goods	464.3	446.1	480.4	450.4	469.4	470.6	482.5	499.1
Nondurable goods	1,224.5	1,251.5	1,290.7	1,251.4	1,274.1	1,277.5	1,292.8	1,318.6
Clothing & shoes	208.9	209.0	221.8	206.8	216.5	217.4	224.3	229.0
Food & beverages	601.4	617.7	630.9	620.0	627.9	623.2	627.3	645.2
Services	2,059.7	2,190.1	2,324.7	2,241.1	2,279.3	2,309.0	2,333.3	2,377.1
Gross private domestic investment	799.5	721.1	770.4	736.1	722.4	773.2	781.8	804.3
Fixed investment	793.2	731.3	786.0	726.9	738.2	765.1	766.6	794.0
Change in business inventories	6.3	-10.2	4.4	9.2	-15.8	8.1	15.0	10.3
Net exports of goods & services	-68.9	-21.8	-30.4	-16.0	-8.1	-37.1	-36.0	-40.5
Government purchases of goods & services	1,043.2	1,090.5	1,114.9	1,090.3	1,103.1	1,109.1	1,124.2	1,123.3
1987 \$ billion (quarterly data seasonally adjusted at annual rates)								
Gross domestic product	4,877.5	4,821.0	4,922.8	4,838.5	4,873.7	4,892.4	4,933.7	4,990.8
Gross national product	4,895.9	4,836.4	4,932.8	4,848.2	4,890.7	4,899.1	4,945.6	4,995.9
Personal consumption expenditures	3,260.4	3,240.8	3,314.0	3,249.0	3,289.3	3,288.5	3,318.4	3,359.9
Durable goods	439.3	414.7	439.1	418.1	432.3	430.0	439.8	454.4
Nondurable goods	1,056.5	1,042.4	1,054.1	1,035.8	1,049.6	1,045.6	1,052.0	1,069.4
Clothing & shoes	185.9	181.3	188.3	177.5	184.1	184.4	190.8	193.7
Food & beverages	520.8	515.8	518.4	515.3	518.9	513.5	514.3	528.7
Services	1,764.8	1,783.7	1,820.7	1,797.4	1,807.3	1,812.9	1,826.6	1,836.2
Gross private domestic investment	739.1	661.1	712.6	676.9	668.9	713.6	724.9	743.1
Fixed investment	732.9	670.4	707.6	669.3	681.4	705.9	710.0	733.3
Change in business inventories	6.2	-9.3	5.0	7.5	-12.6	7.8	15.0	9.8
Net exports of goods & services	-51.8	-21.8	-41.8	-20.5	-21.5	-43.9	-52.7	-49.0
Government purchases of goods & services	929.9	941.0	937.8	933.1	937.0	934.2	943.0	936.8
GDP implicit price deflator (% change)	4.3	4.1	2.6	2.4	3.1	2.7	2.0	2.3
Disposable personal income (\$ bil.)	4,042.9	4,209.6	4,430.8	4,284.9	4,360.9	4,411.8	4,433.2	4,517.3
Disposable per. income (1987 \$ bil.)	3,516.5	3,509.0	3,585.1	3,530.8	3,585.7	3,578.0	3,580.5	3,618.2
Per capita disposable per. income (\$)	16,174	16,658	17,348	16,885	17,143	17,297	17,332	17,610
Per capita dis. per. income (1987 \$)	14,068	13,886	14,035	13,913	14,017	14,021	13,998	14,105
U.S. population, total, incl. military abroad (mil.) *	249.9	252.7	255.5	253.7	254.3	255.0	256.7	256.5
Civilian population (mil.) *	247.8	250.6	253.5	251.6	252.3	253.0	253.8	254.6
Monthly data seasonally adjusted								
	1990	1991	1992	Feb	Nov	Dec	Jan	Feb
Industrial production (1987=100)	109.2	107.1	108.8	107.2	110.4	110.8	111.3	111.8
Leading economic indicators (1982=100)	143.8	143.4	148.8	147.3	150.2	152.8	152.8	153.8
Civilian employment (mil. persons)	117.9	116.9	117.6	117.0	118.1	118.3	118.1	118.5
Civilian unemployment rate (%)	5.5	6.7	7.4	7.3	7.3	7.3	7.1	7.0
Personal income (\$ bil. annual rate)	4,664.2	4,828.3	5,058.1	4,988.7	5,143.7	5,194.0	5,219.2	5,229.1
Money stock—M2 (daily avg.) (\$ bil.) 1/	3,345.5	3,445.8	3,497.3	3,467.7	3,498.1	3,504.0	3,488.2	3,476.1
Three-month Treasury bill rate (%)	7.51	5.42	3.45	3.84	3.14	3.25	3.06	2.95
AAA corporate bond yield (Moody's) (%)	9.32	8.77	8.14	8.29	8.10	7.98	7.91	7.71
Housing starts (1,000) 2/	1,193	1,014	1,200	1,285	1,226	1,286	1,178	1,208
Auto sales at retail, total (mil.)	9.5	8.4	8.4	8.5	8.2	8.7	8.6	8.0
Business inventory/sales ratio	1.53	1.55	1.51	1.52	1.49	1.46	1.46	—
Sales of all retail stores (\$ bil.) 3/	1,849.8	1,865.5	1,962.4	1,61.2	167.3	169.2	169.4	169.8
Nondurable goods stores (\$ bil.)	1,178.8	1,211.8	1,257.3	103.4	106.7	107.3	107.2	108.1
Food stores (\$ bil.)	369.8	376.9	384.0	31.5	32.3	32.7	32.6	33.1
Eating & drinking places (\$ bil.)	191.0	196.9	201.9	16.9	17.4	17.5	17.4	17.5
Apparel & accessory stores (\$ bil.)	95.8	97.5	105.0	8.5	9.0	9.1	9.1	8.9

1/ Annual data as of December of the year listed. 2/ Private, including farm. 3/ Annual total. R = revised. — = not available.

Note: * Population estimates based on 1990 census.

Information contact: Ann Duncan (202) 219-0313.

Table 3.—Foreign Economic Growth, Inflation, & Exports

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 E	1993 F	1994 F	Average 1981-90
	Annual percent change												
World, less U.S.													
Real GDP	2.4	3.6	3.4	3.0	3.5	4.4	3.5	3.0	1.1	1.2	1.7	3.2	3.0
GDP deflator	8.3	7.8	8.0	7.5	9.0	10.8	10.8	24.5	16.5	43.3	35.1	20.6	10.5
Real exports	2.7	9.7	3.8	2.1	5.0	7.0	7.3	5.9	3.7	3.7	4.2	4.6	4.9
Developed less U.S.													
Real GDP	2.1	3.2	3.4	2.7	3.2	4.5	3.6	3.5	1.4	1.1	1.1	2.8	2.9
GDP deflator	6.2	4.8	3.8	3.9	2.8	3.6	4.2	4.4	4.4	4.0	3.7	2.7	5.0
Real exports	3.5	10.8	5.2	-0.2	2.9	6.2	7.9	6.9	4.8	4.0	3.7	4.1	5.1
Eastern Europe & C.I.S.													
Real GDP	3.6	4.0	2.3	3.6	2.8	3.9	1.5	-3.1	-13.3	-12.2	-6.9	-2.1	2.2
GDP deflator 1/	4.2	5.0	6.4	8.1	12.8	35.3	41.3	192.3	68.9	176.0	84.1	38.2	32.1
Real exports	4.6	6.2	-4.0	9.1	7.6	8.5	-5.3	-6.8	-22.1	-9.1	0.6	2.0	2.6
Developing													
Real GDP	3.1	4.7	4.0	3.9	4.5	4.4	3.6	3.2	3.7	4.3	5.1	6.0	3.8
GDP deflator	38.7	37.3	36.4	25.5	33.1	26.4	19.2	16.9	14.4	15.4	14.9	13.3	26.9
Real exports	0.4	7.2	1.7	7.5	11.1	9.4	9.0	5.5	6.1	5.2	6.0	6.2	4.9
Asia													
Real GDP	8.2	7.9	5.9	7.2	8.8	9.1	5.5	5.7	5.0	6.1	6.3	6.5	7.0
GDP deflator	6.3	7.5	5.9	4.4	7.8	8.2	6.1	8.4	7.5	9.3	8.3	7.4	6.7
Real exports	6.4	11.3	2.9	19.0	15.8	14.9	6.2	7.3	9.2	8.9	10.7	9.9	9.2
Latin America													
Real GDP	-2.7	3.7	3.5	4.4	3.0	0.0	1.3	-1.3	2.6	1.7	2.9	3.4	1.1
GDP deflator 1/	30.3	40.8	69.0	62.8	125.5	66.5	36.9	29.6	22.7	23.8	20.5	17.7	49.6
Real exports	2.0	12.0	2.0	0.0	6.0	6.8	10.4	3.9	3.1	2.6	2.2	4.0	5.2
Africa													
Real GDP	1.1	2.2	2.3	1.4	0.6	2.9	2.8	0.9	2.2	1.8	2.9	2.9	1.7
GDP deflator	16.7	12.2	12.2	6.4	25.3	17.4	19.6	15.0	18.0	13.7	18.9	17.9	14.5
Real exports	-5.3	-1.5	3.5	-1.0	0.0	2.9	5.0	7.5	6.1	1.7	1.5	2.6	-2.0
Middle East													
Real GDP	4.5	1.2	1.7	-3.6	-0.1	-0.2	2.5	5.8	2.9	5.7	6.8	6.4	1.9
GDP deflator	-4.5	1.2	3.1	5.7	14.6	9.5	13.5	20.4	2.7	8.9	12.6	11.3	7.9
Real exports	-19.6	-6.7	-7.1	-3.8	24.6	4.8	21.0	5.0	17.2	9.8	4.9	15.9	9.1

1/ Excludes Yugoslavia, Argentina, Brazil, & Peru starting in 1989. E = estimate. F = forecast.

Information contact: Alberto Jerardo, (202) 219-0717.

Farm Prices

Table 4.—Indexes of Prices Received & Paid by Farmers, U.S. Average

	Annual			1992				1993		
	1990	1991	1992 P	Mar	Oct	Nov	Dec	Jan	Feb R	Mar P
	1977 = 100									
Prices received										
All farm products	149	145	139	145	138	136	137	139	140	141
All crops	127	129	121	134	117	115	118	117	118	116
Food grains	127	129	121	152	130	133	134	136	134	131
Feed grains & hay	123	118	115	124	104	104	104	107	106	109
Feed grains	118	115	114	123	101	100	99	102	101	103
Cotton	107	108	87	83	87	84	90	87	88	92
Tobacco	152	161	165	170	163	164	163	161	167	167
Oil-bearing crops	84	91	85	86	83	85	86	89	89	89
Fruit, all	165	262	183	223	157	170	162	146	138	122
Fresh market 1/	196	285	186	235	154	168	161	142	130	113
Commercial vegetables	142	135	151	206	166	141	168	185	177	161
Fresh market	144	140	157	220	179	144	178	174	195	174
Potatoes & dry beans	169	141	126	114	120	127	129	133	133	146
Livestock & products	170	161	167	155	158	156	156	159	162	165
Meat animals	193	188	178	177	180	172	174	181	187	191
Dairy products	141	126	135	129	138	135	132	129	127	125
Poultry & eggs	131	124	117	111	120	127	124	122	121	130
Prices paid										
Commodities & services,										
interest, taxes, & wage rates	184	189	191	190	192	192	192	193	193	193
Production items	171	174	174	172	175	175	175	176	176	176
Feed	128	123	123	—	119	—	—	121	—	—
Feeder livestock	213	214	202	—	206	—	—	216	—	—
Seed	165	163	162	—	162	—	—	162	—	—
Fertilizer	131	134	131	—	128	—	—	128	—	—
Agricultural chemicals	139	151	159	—	161	—	—	161	—	—
Fuels & energy	204	203	199	—	205	—	—	198	—	—
Farm & motor supplies	154	154	160	—	161	—	—	161	—	—
Autos & trucks	231	244	258	—	262	—	—	255	—	—
Tractors & self-propelled machinery	202	211	219	—	224	—	—	224	—	—
Other machinery	216	228	233	—	235	—	—	235	—	—
Building & fencing	143	148	150	—	152	—	—	152	—	—
Farm services & cash rent	166	170	172	—	172	—	—	172	—	—
Int. payable per acre on farm real estate debt	177	172	167	—	167	—	—	164	—	—
Taxes payable per acre on farm real estate	158	160	171	—	171	—	—	178	—	—
Wage rates (seasonally adjusted)	193	201	210	—	201	—	—	201	—	—
Production items, interest, taxes, & wage rates	172	175	176	—	176	—	—	177	—	—
Ratio, prices received to prices paid (%) 2/	81	77	73	78	72	71	71	72	73	73
Prices received (1910-14=100)	681	665	636	661	633	623	626	634	640	645
Prices paid, etc. (parity index) (1910-14=100)	1,267	1,298	1,317	—	1,323	—	—	1,330	—	—
Parity ratio (1910-14=100) (%) 2/	54	51	48	—	48	47	47	48	—	—

1/ Fresh market for noncitrus, fresh market & processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities & services, interest, taxes, & wage rates. Ratio uses the most recent prices paid index. Prices paid data are quarterly & will be published in January, April, July, & October. R = revised. P = preliminary. — = not available.

Information contact: Ann Duncan (202) 219-0313.

Table 5.—Prices Received by Farmers, U.S. Average

	Annual 1/			1992				1993		
	1990	1991	1992 P	Mar	Oct	Nov	Dec	Jan	Feb R	Mar P
CROPS										
All wheat (\$/bu.)	2.61	3.00	3.30	3.72	3.21	3.29	3.31	3.37	3.33	3.24
Rice, rough (\$/cwt)	6.70	7.58	8.10	7.78	8.37	8.38	8.39	8.38	8.08	5.99
Corn (\$/bu.)	2.28	2.37	2.05	2.49	2.04	1.98	1.98	2.03	2.00	2.08
Sorghum (\$/cwt)	3.79	4.02	3.39	4.31	3.23	3.22	3.27	3.38	3.32	3.37
All hay, baled (\$/ton)	80.80	71.00	74.00	69.90	70.50	74.10	73.80	75.10	77.70	78.90
Soybeans (\$/bu.)	5.74	5.60	5.40	5.67	5.28	5.38	5.46	5.58	5.56	5.59
Cotton, upland (cts./lb.)	68.2	58.3	—	50.3	52.7	51.0	54.2	52.7	62.9	5.59
Potatoes (\$/cwt)	6.08	4.95	5.28	4.67	4.68	4.88	5.01	5.24	5.25	5.94
Lettuce (\$/cwt) 2/	11.50	11.40	12.40	12.00	13.40	9.50	16.90	10.90	19.00	17.00
Tomatoes fresh (\$/cwt) 2/	27.40	31.80	36.20	80.70	59.60	39.70	39.50	38.30	21.80	19.30
Onions (\$/cwt)	10.50	12.50	12.80	21.10	12.20	12.60	15.20	17.00	14.10	15.90
Dry edible beans (\$/cwt)	18.50	15.60	21.00	15.30	20.30	21.30	21.50	21.10	20.80	20.10
Apples for fresh use (cts./lb.)	20.9	25.0	—	24.2	22.4	19.9	20.0	19.2	17.8	15.2
Pears for fresh use (\$/ton)	360.00	385.00	399.00	381.00	398.00	449.00	380.00	382.00	393.00	399.00
Oranges, all uses (\$/box) 3/	6.16	6.78	5.83	7.39	1.79	3.80	2.90	2.66	2.39	2.11
Grapefruit, all uses (\$/box) 3/	5.86	5.48	6.16	7.15	7.09	4.11	4.66	3.00	2.42	1.48
LIVESTOCK										
Beef cattle (\$/cwt)	74.80	72.90	71.50	72.80	71.80	70.20	70.80	74.20	75.80	76.90
Calves (\$/cwt)	96.50	99.90	89.60	94.10	86.00	88.50	87.00	93.20	95.90	98.30
Hogs (\$/cwt)	54.00	48.80	41.80	39.10	41.90	40.90	41.80	41.40	44.20	48.20
Lambs (\$/cwt)	58.00	52.50	60.70	63.40	55.40	58.20	65.20	67.00	72.70	76.90
All milk, sold to plants (\$/cwt)	13.70	12.20	13.10	12.50	13.40	13.10	12.80	12.50	12.30	12.10
Milk, manuf. grade (\$/cwt)	12.34	11.05	11.88	11.10	12.20	12.00	11.50	11.10	10.90	10.90
Broilers (cts./lb.)	32.4	31.0	31.7	2.97	32.9	33.2	31.3	31.5	31.8	32.4
Eggs (cts./doz.) 4/	70.4	68.2	56.4	54.2	58.9	64.9	64.4	63.7	61.5	70.7
Turkeys (cts./lb.)	38.4	37.7	37.4	37.0	38.6	39.0	39.2	35.9	34.8	37.2
Wool (cts./lb.) 5/	80.0	55.0	55.0	73.0	69.5	61.7	48.8	43.3	43.7	45.6

1/ Season average price by crop year for crops. Calendar year average of monthly prices for livestock. 2/ Excludes Hawaii. 3/ Equivalent on-tree returns. 4/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail. 5/ Average local market price, excluding incentive payments. P = preliminary. R = revised. — = not available.

Information contact: Ann Duncan (202) 219-0313.

Producer & Consumer Prices

Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)

	Annual	1992						1993		
	1992	Mar	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
		1982-84=100								
Consumer Price Index, all items	140.3	139.3	140.9	141.3	141.8	142.0	141.9	142.6	143.1	143.6
Consumer Price Index, less food	140.8	139.5	141.4	141.8	142.4	142.7	142.5	143.1	143.7	144.2
All food	137.9	138.1	138.0	138.5	138.3	138.3	138.7	139.8	139.9	140.1
Food away from home	140.7	140.1	141.0	141.2	141.3	141.5	141.6	142.0	142.2	142.4
Food at home	136.8	137.6	136.9	137.4	137.2	137.0	137.5	139.1	139.1	139.4
Meats 1/	130.7	131.1	130.8	130.9	131.1	131.2	131.1	132.3	132.1	133.1
Beef & veal	132.3	133.4	131.4	131.8	132.6	132.9	132.8	135.1	135.6	136.3
Pork	127.8	127.0	129.5	129.4	128.7	127.9	127.4	127.9	127.2	129.0
Poultry	131.4	128.2	133.7	134.0	133.3	133.8	133.7	134.6	133.1	135.7
Fish	151.7	152.8	151.6	151.2	151.4	151.2	152.0	157.2	157.5	157.8
Eggs	108.3	108.0	102.2	111.6	109.3	113.4	117.7	116.2	115.8	120.3
Dairy products 2/	128.5	127.8	129.2	129.7	130.1	129.4	129.1	129.5	128.8	128.8
Fats & oils 3/	129.6	129.8	129.5	129.9	129.9	128.5	128.4	130.2	130.7	130.2
Fresh fruit	184.2	188.7	181.4	189.2	182.1	181.4	181.8	191.0	187.0	184.4
Processed fruit	137.7	138.8	138.2	138.0	136.4	135.5	134.8	133.3	134.5	132.0
Fresh vegetables	157.9	172.7	153.8	152.8	155.2	158.4	166.1	172.4	171.1	173.7
Potatoes	141.5	132.1	164.7	153.1	143.0	136.0	137.2	139.7	138.9	142.4
Processed vegetables	128.8	128.6	130.2	129.1	129.1	127.7	127.3	129.8	128.9	130.2
Cereals & bakery products	151.5	149.7	153.1	152.6	152.8	152.7	153.3	153.4	154.9	154.6
Sugar & sweets	133.1	132.9	133.8	133.7	133.7	133.0	132.1	133.1	133.3	132.8
Beverages, nonalcoholic	114.3	115.3	114.1	114.2	114.1	112.4	112.3	113.5	115.1	114.8
Apparel										
Apparel, commodities less footwear	130.2	132.3	128.1	131.7	133.7	133.1	129.4	127.3	131.9	135.2
Footwear	125.0	124.6	124.9	126.3	127.1	126.0	125.1	124.4	125.2	126.3
Tobacco & smoking products	219.8	213.5	221.5	224.0	225.6	225.0	228.9	234.6	235.6	236.3
Beverages, alcoholic	147.3	146.7	147.8	148.0	148.2	148.2	148.1	148.7	149.1	149.4

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ann Duncan (202) 219-0313.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1992					1993	
	1990	1991	1992	Feb	Sept	Oct R	Nov	Dec	Jan	Feb
	1982 = 100									
All commodities	116.3	116.5	117.2	116.0	118.0	118.1	117.8	117.6	118.0	118.2
Finished goods 1/	119.2	121.7	123.2	122.1	123.3	124.3	123.9	123.8	124.0	124.3
All foods 2/	123.2	122.2	120.8	120.9	120.7	121.0	120.9	121.7	121.3	121.5
Consumer foods	124.4	124.1	123.2	123.4	123.3	123.6	123.3	124.1	123.8	124.0
Fresh fruit & melons	118.1	129.9	83.8	90.0	73.4	79.3	91.1	84.1	79.3	77.7
Fresh & dried vegetables	118.1	103.8	115.0	135.1	107.5	141.1	114.3	134.1	132.1	136.9
Dried fruit	106.7	111.8	114.4	115.0	113.9	114.7	113.7	114.9	116.2	115.7
Canned fruit & juice	127.0	128.6	134.5	136.4	133.3	132.1	130.8	129.9	128.1	128.3
Frozen fruit & juice	139.0	116.3	125.8	134.6	121.7	118.2	118.3	113.8	108.8	106.1
Fresh veg. excl. potatoes	107.8	100.2	118.4	154.7	114.8	149.0	108.2	133.4	128.7	125.8
Canned veg. & juices	116.7	112.9	109.6	109.7	109.2	109.1	110.0	110.5	109.9	110.2
Frozen vegetables	118.4	117.6	116.4	116.1	116.7	116.3	117.6	118.2	118.2	118.2
Potatoes	157.3	125.7	118.3	92.8	116.1	107.3	112.9	108.4	120.2	119.1
Eggs for fresh use	3/	3/	78.6	79.1	85.8	78.1	91.9	89.9	87.1	87.9
Bakery products	141.0	146.6	152.5	150.0	153.4	154.1	153.8	154.7	155.5	155.7
Meats	117.0	113.5	106.7	105.6	106.6	106.7	105.3	108.4	107.9	108.5
Beef & veal	116.0	112.2	109.7	110.0	107.8	109.0	108.7	114.8	113.4	114.0
Pork	119.8	113.4	98.5	94.5	101.4	99.9	95.8	97.0	97.0	97.7
Processed poultry	113.6	109.9	109.1	104.7	111.1	111.8	111.3	109.2	108.3	108.5
Fish	147.2	149.5	153.0	158.8	150.0	140.2	139.8	147.5	148.7	149.8
Dairy products	117.2	114.6	118.0	116.0	120.0	119.4	118.8	117.3	116.2	115.2
Processed fruits & vegetables	124.7	119.6	120.8	122.4	119.8	119.1	119.0	118.8	117.5	117.4
Shortening & cooking oil	123.2	116.5	114.9	113.4	113.6	113.3	115.6	116.5	118.5	116.6
Soft drinks	122.3	125.5	125.7	126.5	125.3	125.1	125.9	126.1	126.7	127.5
Consumer finished goods less foods	115.3	118.7	120.8	118.8	121.4	122.3	121.7	121.1	121.4	121.8
Beverages, alcoholic	117.2	123.7	128.1	126.1	125.7	125.5	125.6	125.4	125.8	125.6
Apparel	117.5	119.6	122.2	121.9	122.7	122.9	122.9	123.0	123.2	123.3
Footwear	125.6	128.6	131.9	131.8	132.8	132.4	132.2	133.2	133.2	133.8
Tobacco products	221.4	249.7	275.3	268.2	274.1	274.2	276.6	285.1	291.9	292.2
Intermediate materials 4/	114.5	114.4	114.7	113.5	115.8	115.4	115.1	114.9	115.3	115.5
Materials for food manufacturing	117.9	115.3	113.9	113.5	114.5	112.9	112.8	113.3	113.2	112.6
Flour	103.6	96.8	109.3	118.4	106.2	106.5	107.5	105.4	109.7	110.0
Refined sugar 5/	122.7	121.6	120.0	120.1	119.6	119.2	119.8	119.8	118.2	118.5
Crude vegetable oils	115.8	103.0	97.1	96.1	93.2	91.2	96.1	101.9	104.0	101.2
Crude materials 6/	108.9	101.2	100.3	98.6	102.4	101.8	101.5	100.5	101.4	101.1
Foodstuffs & feedstuffs	113.1	105.5	105.1	106.0	102.9	103.5	102.8	104.4	105.2	105.6
Fruits & vegetables & nuts 7/	117.5	114.7	96.8	108.9	89.3	105.2	101.9	106.0	103.4	104.8
Grains	97.4	92.0	97.3	106.2	90.6	87.8	95.8	89.2	89.9	88.1
Livestock	115.6	107.9	104.7	106.0	103.4	104.2	101.8	106.3	108.3	110.0
Poultry, live	118.8	111.2	112.6	102.8	111.8	119.3	121.7	108.9	112.0	110.4
Fibers, plant & animal	117.8	115.1	89.8	83.5	93.8	82.8	83.2	87.3	89.5	89.5
Fluid milk	100.8	89.5	98.3	93.8	99.5	98.1	96.9	93.9	91.0	89.1
Oilseeds	112.1	108.4	107.5	105.2	105.1	101.2	104.0	107.1	108.9	106.7
Tobacco, leaf	95.8	101.1	101.0	102.2	106.1	105.5	106.1	106.1	104.8	110.0
Sugar, raw cane	119.2	113.7	112.1	112.4	112.7	113.6	112.7	111.0	109.3	109.5

1/ Commodities ready for sale to ultimate consumer. 2/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). 3/ New index beginning Dec. 1991. 4/ Commodities requiring further processing to become finished goods. 5/ All types & sizes of refined sugar. 6/ Products entering market for the first time that have not been manufactured at that point. 7/ Fresh & dried. R = revised.

Information contact: Ann Duncan (202) 219-0313

Farm-Retail Price Spreads

Table 8.—Farm-Retail Price Spreads

	Annual			1992					1993	
	1990	1991	1992	Feb ¹	Sept	Oct	Nov	Dec	Jan	Feb
Market basket 1/										
Retail cost (1982-84=100)	133.5	137.4	138.4	138.0	139.1	138.9	138.9	139.5	141.0	140.8
Farm value (1982-84=100)	113.1	106.1	103.4	102.1	104.1	104.5	103.5	103.8	104.2	104.0
Farm-retail spread (1982-84=100)	144.5	154.2	157.3	157.3	157.9	157.5	158.0	158.9	180.8	180.4
Farm value-retail cost (%)	29.7	27.0	28.2	25.9	28.2	28.3	28.1	26.0	25.9	25.9
Meat products										
Retail cost (1982-84=100)	128.5	132.5	130.7	130.3	130.9	131.1	131.2	131.1	132.3	132.1
Farm value (1982-84=100)	116.8	110.0	104.5	101.3	104.8	104.2	103.5	105.5	107.1	109.5
Farm-retail spread (1982-84=100)	140.4	155.6	157.5	160.1	157.7	158.7	159.8	157.4	158.2	155.3
Farm value-retail cost (%)	46.0	42.0	40.5	39.4	40.6	40.3	40.0	40.8	41.0	42.0
Dairy products										
Retail cost (1982-84=100)	126.5	125.1	128.5	128.1	129.7	130.1	129.4	129.1	129.5	128.8
Farm value (1982-84=100)	101.7	90.0	95.9	95.4	98.6	97.4	95.0	94.5	92.6	90.3
Farm-retail spread (1982-84=100)	149.6	157.5	158.6	158.2	158.3	160.2	161.1	161.0	163.5	164.3
Farm value-retail cost (%)	38.5	34.5	35.8	35.7	36.5	35.9	35.2	35.1	34.3	33.6
Poultry										
Retail cost (1982-84=100)	132.5	131.5	131.4	128.1	134.0	133.3	133.8	133.7	134.6	133.1
Farm value (1982-84=100)	107.6	102.5	104.0	98.1	104.1	107.9	108.8	103.8	102.7	103.0
Farm-retail spread (1982-84=100)	181.1	184.9	163.0	162.6	168.4	162.8	162.1	168.1	171.3	167.7
Farm value-retail cost (%)	43.5	41.7	42.4	41.0	41.6	43.3	43.6	41.6	40.9	41.4
Eggs										
Retail cost (1982-84=100)	124.1	121.2	108.3	110.7	111.6	109.3	113.4	117.7	116.2	115.6
Farm value (1982-84=100)	108.0	100.9	77.8	74.4	84.1	78.2	94.7	95.4	92.6	88.3
Farm-retail spread (1982-84=100)	153.2	157.6	163.2	175.8	161.1	165.2	147.0	157.8	158.6	164.6
Farm value-retail cost (%)	55.9	53.5	48.1	43.2	48.4	46.0	53.7	52.1	51.2	49.1
Cereal & bakery products										
Retail cost (1982-84=100)	140.0	145.8	151.5	149.3	152.6	152.8	152.7	153.3	153.4	154.9
Farm value (1982-84=100)	90.5	85.3	94.7	104.2	89.9	89.7	90.8	91.2	91.6	91.3
Farm-retail spread (1982-84=100)	146.9	154.3	159.4	155.6	161.3	161.6	161.3	162.0	162.0	163.8
Farm value-retail cost (%)	7.9	7.2	7.7	8.5	7.2	7.2	7.3	7.3	7.3	7.2
Fresh fruits										
Retail cost (1982-84=100)	174.6	200.1	189.6	186.6	195.3	188.0	188.3	189.6	199.0	191.6
Farm value (1982-84=100)	128.3	174.4	122.5	123.6	127.6	114.7	122.1	127.1	132.6	132.2
Farm-retail spread (1982-84=100)	185.9	211.9	220.8	215.7	226.6	221.8	218.9	218.4	229.6	219.0
Farm value-retail cost (%)	23.2	27.5	20.4	20.9	20.6	19.3	20.5	21.2	21.0	21.8
Fresh vegetables										
Retail costs (1982-84=100)	151.1	154.4	157.9	163.5	152.8	155.2	158.4	166.1	172.4	171.1
Farm value (1982-84=100)	124.4	110.8	121.6	141.2	117.5	141.0	115.0	124.0	132.6	129.4
Farm-retail spread (1982-84=100)	164.9	176.8	176.8	175.0	170.9	162.5	180.7	187.7	192.9	192.5
Farm value-retail cost (%)	28.0	24.4	26.1	29.3	26.1	30.8	24.7	25.4	26.1	25.7
Processed fruits & vegetables										
Retail cost (1982-84=100)	132.7	130.2	133.7	134.3	134.0	133.1	132.0	131.4	131.6	131.9
Farm value (1982-84=100)	144.0	120.6	129.0	132.2	128.9	128.3	125.9	111.2	110.0	106.9
Farm-retail spread (1982-84=100)	129.1	133.2	135.2	135.0	135.6	134.8	133.9	137.7	138.3	139.7
Farm value-retail cost (%)	25.8	22.0	22.9	23.4	22.9	22.9	22.7	20.1	19.9	19.3
Fats & oils										
Retail cost (1982-84=100)	126.3	131.7	129.8	131.3	129.9	129.9	128.5	128.4	130.2	130.7
Farm value (1982-84=100)	107.1	98.0	93.2	89.2	89.1	90.0	98.4	98.2	102.0	99.7
Farm-retail spread (1982-84=100)	133.4	144.2	143.3	146.8	144.9	144.6	139.8	139.5	140.6	142.1
Farm value-retail cost (%)	22.8	20.0	19.3	18.3	18.4	18.6	20.6	20.6	21.1	20.5
	Annual			1992				1993		
	1990	1991	1992	Mar	Oct	Nov	Dec	Jan	Feb	Mar
Beef, Choice										
Retail price 2/ (cts./lb.)	281.0	288.3	284.8	285.6	285.6	287.1	287.3	288.4	292.5	295.5
Wholesale value 3/ (cts.)	189.6	182.5	179.8	183.3	177.5	177.1	184.2	188.5	187.8	191.7
Net farm value 4/ (cts.)	168.4	160.2	161.8	168.5	160.1	159.5	165.1	170.2	172.7	178.7
Farm-retail spread (cts.)	112.6	128.1	122.8	117.1	125.5	127.6	122.2	118.2	119.8	116.8
Wholesale-retail 5/ (cts.)	91.4	105.8	105.0	102.3	108.1	110.0	103.1	99.9	104.7	103.8
Farm-wholesale 6/ (cts.)	21.2	22.3	17.8	14.8	17.4	17.8	19.1	18.3	15.1	13.0
Farm value-retail price (%)	60	56	57	59	56	56	57	59	59	60.0
Pork										
Retail price 2/ (cts./lb.)	212.6	211.9	198.0	198.2	198.4	196.4	196.3	196.0	193.9	193.9
Wholesale value 3/ (cts.)	118.3	108.9	98.9	95.8	98.8	96.9	98.8	95.0	99.0	102.8
Net farm value 4/ (cts.)	87.2	78.4	67.8	82.4	87.1	86.0	86.8	86.0	70.8	74.6
Farm-retail spread (cts.)	125.4	133.5	130.2	135.8	131.3	130.4	129.7	130.0	123.1	119.3
Wholesale-retail 5/ (cts.)	94.3	103.0	99.1	102.6	99.6	99.5	97.5	101.0	94.9	91.3
Farm-wholesale 6/ (cts.)	31.1	30.5	31.1	33.2	31.7	30.9	32.2	29.0	28.2	28.0
Farm value-retail price (%)	41	37	34	31	34	34	34	34	37	38

1/ Retail costs are based on CPI-U of retail prices for domestically produced farm foods, published monthly by BLS. The farm value is the payment for the quantity of farm equivalent to the retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm-retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing. 2/ Weighted average price of retail cuts from pork & choice yield grade 3 beef. Prices from BLS. 3/ Value of wholesale (boxed beef) & wholesale cuts (pork) equivalent to 1 lb. of retail cuts adjusted for transportation costs & byproduct values. 4/ Market value to producer for live animal equivalent to 1 lb. of retail cuts, minus value of byproducts. 5/ Charges for retailing & other marketing services such as wholesaling, & in-city transportation. 6/ Charges for livestock marketing, processing, & transportation.

Information contacts: Denis Dunham (202) 219-0870, Larry Duewer (202) 219-0712.

Table 9.—Price Indexes of Food Marketing Costs

(See the March 1993 issue.)

Information contact: Denis Dunham (202) 219-0870.

Livestock & Products

Table 10.—U.S. Meat Supply & Use

	Beg. stocks	Production 1/	Imports	Total supply	Exports	Ending stocks	Consumption		Primary market price 3/
							Total	Per capita 2/	
Million pounds 4/							Pounds		
Beef									
1990	335	22,743	2,356	25,434	1,006	397	24,031	67.6	78.55
1991	397	22,917	2,406	25,720	1,188	419	24,113	68.8	74.28
1992	419	23,086	2,440	25,945	1,324	360	24,261	68.5	75.36
1993 F	360	23,193	2,335	25,888	1,380	350	24,158	65.5	74-78
Pork									
1990	313	15,354	898	16,565	238	296	16,030	49.8	55.32
1991	296	15,999	775	17,070	283	393	16,394	50.3	49.69
1992	388	17,234	645	18,267	407	385	17,475	53.1	43.03
1993 F	385	17,419	670	18,474	445	375	17,654	53.1	43-47
Veal 5/									
1990	4	327	0	331	0	6	325	1.1	96.51
1991	6	306	0	312	0	7	305	1.0	99.94
1992	7	310	0	317	0	5	312	1.0	89.38
1993 F	5	293	0	298	0	4	294	0.9	88-92
Lamb & mutton									
1990	8	363	59	430	3	8	419	1.5	55.54
1991	8	363	60	431	3	6	422	1.5	53.21
1992	8	348	66	420	3	8	409	1.4	61.00
1993 F	8	336	65	409	2	9	398	1.4	63-67
Total red meat									
1990	660	38,787	3,313	42,760	1,247	707	40,806	120.1	—
1991	707	39,585	3,241	43,533	1,474	820	41,239	119.6	—
1992	820	40,978	3,151	44,949	1,734	758	42,457	122.0	—
1993 F	758	41,241	3,070	45,069	1,827	738	42,504	120.9	—
Broilers									
1990	38	18,430	0	18,468	1,143	26	17,299	61.1	54.8
1991	26	19,591	0	19,617	1,261	36	18,320	63.9	52.0
1992	36	20,907	0	20,943	1,489	33	19,421	67.1	52.6
1993 F	33	21,664	0	21,697	1,580	33	20,084	68.6	51-55
Mature chicken									
1990	189	523	0	713	25	224	464	1.9	—
1991	224	508	0	732	28	274	429	1.7	—
1992	274	519	0	793	41	345	407	1.6	—
1993 F	345	517	0	862	37	330	495	1.9	—
Turkeys									
1990	236	4,514	0	4,750	54	308	4,390	17.6	63.2
1991	308	4,603	0	4,909	103	264	4,541	16.0	61.3
1992	264	4,778	0	5,042	171	272	4,599	18.0	59.9
1993 F	272	4,848	0	5,120	160	275	4,665	18.1	69-63
Total poultry									
1990	463	23,468	0	23,931	1,222	557	22,152	80.5	—
1991	557	24,701	0	25,258	1,392	575	23,291	83.6	—
1992	575	26,203	0	26,778	1,701	650	24,428	86.7	—
1993 F	650	27,029	0	27,578	1,797	638	25,243	88.6	—
Red meat & poultry									
1990	1,123	62,255	3,313	66,691	2,469	1,264	62,958	200.6	—
1991	1,264	64,286	3,241	68,791	2,867	1,395	64,530	203.3	—
1992	1,395	67,151	3,151	71,727	3,435	1,408	66,684	208.7	—
1993 F	1,408	69,079	3,070	72,747	3,624	1,376	67,747	209.5	—

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry. 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was 70.5). 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: Medium # 1, Nebraska Direct 1,100-1,300 lb.; pork: barrows & gilts, Iowa, Southern Minnesota; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. 5/ Beginning 1989 veal trade no longer reported separately. F = forecast. — = not available.

Information contacts: Polly Cochran or Maxine Davis (202) 219-0767.

Table 11.—U.S. Egg Supply & Use

	Beg. stocks	Pro- duc- tion	Im- ports	Total supply	Ex- ports	Hatch- ing use	Ending stocks	Consumption		
								Total	Per capita	Wholesale price*
									No.	Cts./doz.
Million dozen										
1987	10.4	5,888.2	5.6	5,884.2	111.2	599.1	14.4	5,159.5	254.9	61.6
1988	14.4	5,784.2	5.3	5,803.9	141.8	605.9	15.2	5,041.0	246.9	62.1
1989	15.2	5,598.2	25.2	5,638.5	91.6	643.9	10.7	4,892.4	237.3	81.9
1990	10.7	5,665.6	9.1	5,685.3	100.5	678.5	11.8	4,894.7	235.0	62.2
1991	11.6	5,779.3	2.3	5,793.3	154.3	708.1	13.0	4,917.9	233.5	77.5
1992	13.0	5,882.7	4.3	5,899.9	157.0	726.6	13.5	5,002.8	235.0	65.4
1993	13.5	5,925.0	4.0	5,942.5	160.0	750.0	12.0	5,020.5	233.4	70-78

* Cartoned grade A large eggs, New York. F = forecast.

Information contact: Maxine Davis (202) 219-0767.

Table 12.—U.S. Milk Supply & Use^{1/}

	Production	Farm use	Commercial				Total commercial supply	CCC net removals	Commercial		All milk price 1/	CCC net removals	
			Farm marketings	Beg. stock	Imports	Ending stocks			Disappearance	Skim solids basis		Total solids basis 2/	
			Billion pounds (milkfat basis)									\$/cwt	Billion pounds
1985	143.0	2.5	140.8	4.8	2.8	148.2	13.3	4.5	130.4	12.76	17.2	15.6	
1986	143.1	2.4	140.7	4.5	2.7	147.9	10.8	4.1	133.0	12.51	14.3	12.9	
1987	142.7	2.3	140.5	4.1	2.5	147.1	8.8	4.6	135.7	12.54	9.3	8.3	
1988	146.2	2.2	142.9	4.6	2.4	149.9	9.1	4.3	136.5	12.26	5.5	6.9	
1989	144.2	2.1	142.2	4.3	2.5	149.0	9.4	4.1	135.4	13.56	0.4	4.0	
1990	148.3	2.0	146.3	4.1	2.7	153.1	9.0	5.1	138.9	13.88	1.6	4.6	
1991	148.5	2.0	146.5	5.1	2.6	154.3	10.4	4.5	139.4	12.24	3.9	6.5	
1992	151.7	2.0	149.7	4.5	2.5	156.7	10.0	4.7	142.0	13.10	1.7	5.0	
1993 F	151.4	2.0	149.4	4.7	2.6	156.6	7.3	4.5	144.8	12.85	3.0	4.8	

^{1/} Delivered to plants & dealers; does not reflect deductions. ^{2/} Arbitrarily weighted average of milkfat basis (40 percent) & skim solids basis (60 percent). F = forecast.

Information contact: Jim Miller (202) 219-0770.

Table 13.—Poultry & Eggs

	Annual			1992					1993	
	1990	1991	1992	Feb	Sept	Oct	Nov	Dec	Jan	Feb
Broilers										
Federally inspected slaughter, certified (mil. lb.)	18,553.9	19,727.7	21,052.4	1,580.7	1,803.5	1,834.0	1,595.0	1,817.8	1,802.8	1,655.3
Wholesale price, 12-city (cts./lb.)	54.8	52.0	52.6	50.3	51.3	53.7	55.0	51.2	52.1	53.0
Price of grower feed (\$/ton)	218	208	208	206	212	206	201	202	203	205
Broiler-feed price ratio 1/	3.0	3.0	3.1	2.9	3.0	3.2	3.3	3.1	3.1	3.1
Stocks beginning of period (mil. lb.)	38.3	28.1	38.1	39.3	36.0	31.1	28.8	29.0	32.8	31.6
Broiler-type chicks hatched (mil.) 2/	6,324.4	6,616.5	6,830.9	533.6	554.8	547.0	526.4	588.3	587.9	536.4
Turkeys										
Federally inspected slaughter, certified (mil. lb.)	4,560.7	4,651.9	4,828.9	331.7	431.3	467.6	423.0	393.1	354.1	318.8
Wholesale price, Eastern U.S., 8-16 lb. young hens (cts./lb.)	63.2	61.2	59.9	55.0	61.0	63.9	65.6	65.1	58.1	56.8
Price of turkey grower feed (\$/ton)	236	230	242	235	247	241	244	245	239	240
Turkey-feed price ratio 1/	3.2	3.3	3.1	3.0	3.0	3.2	3.2	3.2	3.0	2.9
Stocks beginning of period (mil. lb.)	235.9	306.4	264.1	325.5	684.2	734.4	714.7	320.5	271.7	314.7
Pouls placed in U.S. (mil.)	304.9	308.1	307.8	25.2	21.6	21.9	22.1	24.0	24.7	25.3
Eggs										
Farm production (mil.)	67,987	69,352	70,592	5,581	5,748	6,010	5,904	6,099	6,020	5,421
Average number of layers (mil.)	270	275	278	279	276	279	281	281	282	262
Rate of lay (eggs per layer on farms)	251.7	252.4	253.9	19.9	20.8	21.5	21.0	21.7	21.3	19.2
Cartoned price, New York, grade A large (cts./doz.) 3/	82.2	77.5	85.4	81.7	71	85.3	75.3	73.6	71.7	69.9
Price of laying feed (\$/ton)	200	192	199	201	202	196	197	195	199	198
Egg-feed price ratio 1/	7.0	6.8	5.7	5.4	5.9	5.8	6.6	6.6	6.4	6.2
Stocks, first of month										
Shell (mil. doz.)	0.36	0.45	0.63	0.6	0.69	0.66	0.51	0.45	0.45	0.36
Frozen (mil. doz.)	10.3	11.2	12.3	15.2	15.3	15.2	16.5	14.2	13.0	12.7
Replacement chicks hatched (mil.)	398	420	386	32.0	28.0	32.0	26.9	29.5	33.4	33.7

^{1/} Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. ^{2/} Placement of broiler chicks is currently reported for 15 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. ^{3/} Price of cartoned eggs to volume buyers for delivery to retailers.

Information contact: Maxine Davis (202) 219-0767.

Table 14.—Dairy

	Annual			1992					1993	
	1990	1991	1992	Feb	Sept	Oct	Nov	Dec	Jan	Feb
Milk prices, Minnesota-Wisconsin, 3.5% fat (\$/cwt) 1/	12.21	11.05	11.88	11.21	12.28	12.05	11.84	11.34	10.89	10.74
Wholesale Prices										
Butter, grade A Chi. (cts./lb.)	102.1	99.3	82.5	86.2	81.7	82.2	80.7	78.6	75.2	75.2
Am. cheese, Wis. assembly pt. (cts./lb.)	136.7	124.4	131.8	119.0	136.9	132.4	129.4	123.2	119.3	118.6
Nonfat dry milk (cts./lb.) 2/	100.6	94.0	107.1	97.6	105.1	108.0	109.1	109.2	111.0	113.8
USDA net removals 3/										
Total milk equiv. (mil. lb.) 4/	9,017.2	10,425.0	10,011.6	1,391.2	250.6	342.4	346.7	568.9	1,686.2	1,486.6
Butter (mil. lb.)	400.3	442.8	440.5	83.5	9.0	13.7	13.3	24.6	75.4	65.8
Am. cheese (mil. lb.)	21.5	76.9	13.8	0.8	0.3	0.9	3.2	0.9	1.9	3.1
Nonfat dry milk (mil. lb.)	117.8	269.5	176.4	2.6	4.4	37.0	17.2	44.0	51.5	31.2
Milk										
Milk prod. 21 States (mil. lb.)	125,772	125,871	128,300	10,251	10,263	10,532	10,184	10,659	10,760	9,996
Milk per cow (lb.)	14,778	14,977	15,548	1,238	1,246	1,278	1,237	1,292	1,310	1,218
Number of milk cows (1,000)	8,512	8,391	8,253	8,278	8,237	8,238	8,235	8,247	8,215	8,204
U.S. milk production (mil. lb.)	148,314	148,477	151,747	7/ 12,141	7/ 12,076	7/ 12,465	7/ 12,072	7/ 12,629	7/ 12,749	7/ 11,844
Stocks, beginning										
Total (mil. lb.)	9,036	13,359	15,841	16,677	20,253	17,921	16,038	14,826	14,215	15,410
Commercial (mil. lb.)	4,120	5,148	4,461	4,898	5,162	4,976	4,752	4,603	4,688	4,817
Government (mil. lb.)	4,916	8,213	11,379	11,978	15,092	12,945	11,286	10,223	9,526	10,593
Imports, total (mil. lb.)	2,690	2,625	2,520	142	196	226	263	323	171	—
Commercial disappearance (mil. lb.)	138,922	139,336	141,986	10,734	12,040	12,401	11,970	12,126	10,933	—
Butter										
Production (mil. lb.)	1,302.2	1,336.3	1,344.5	132.0	90.0	100.4	98.3	115.1	144.4	138.9
Stocks, beginning (mil. lb.)	256.2	418.1	539.4	565.4	705.7	608.5	541.7	487.6	447.7	495.4
Commercial disappearance (mil. lb.)	915.2	903.0	922.6	72.7	83.4	88.7	88.3	92.5	70.5	—
American cheese										
Production (mil. lb.)	2,894.2	2,804.9	2,938.7	231.3	222.9	240.2	233.1	251.2	247.8	225.7
Stocks, beginning (mil. lb.)	236.2	347.4	318.7	340.4	364.8	350.5	328.9	324.8	346.7	352.1
Commercial disappearance (mil. lb.)	2,784.4	2,792.7	2,903.1	221.4	233.5	259.3	241.7	231.0	240.8	—
Other cheese										
Production (mil. lb.)	3,167.0	3,265.9	3,518.8	265.8	297.1	321.5	314.4	307.7	261.3	265.6
Stocks, beginning (mil. lb.)	93.2	110.8	97.5	102.1	123.9	121.1	121.7	121.9	120.9	120.3
Commercial disappearance (mil. lb.)	3,426.4	3,575.2	3,762.1	284.7	321.2	345.6	343.1	345.6	266.8	—
Nonfat dry milk										
Production (mil. lb.)	879.2	877.5	873.0	78.1	52.8	53.6	56.6	80.9	76.5	83.6
Stocks, beginning (mil. lb.)	49.5	161.9	214.8	190.0	138.1	112.0	90.8	87.6	81.2	72.4
Commercial disappearance (mil. lb.)	697.6	682.7	688.9	71.8	66.4	30.3	41.4	40.0	32.2	—
Frozen dessert										
Production (mil. gal.) 5/	1,174.6	1,196.1	1,238.2	87.8	105.2	92.0	79.7	80.4	73.4	81.7
		Annual			1991			1992		
	1990	1991	1992	II	III	IV	I	II	III	IV
Milk production (mil. lb.)	148,314	148,477	151,747	38,586	36,232	36,270	37,989	39,077	37,515	37,166
Milk per cow (lb.)	14,642	14,860	15,423	3,859	3,643	3,655	3,852	3,971	3,818	3,782
No. of milk cows (1,000)	10,127	9,992	9,839	10,000	9,944	9,923	9,883	9,841	9,826	9,827
Milk-feed price ratio 6/	1.71	1.58	1.69	1.46	1.59	1.77	1.68	1.85	1.75	1.69
Returns over concentrate costs (\$/cwt milk) 8/	10.17	8.95	9.74	8.05	9.25	10.45	9.60	9.50	10.10	9.75

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area. 3/ Includes products exported through the Dairy Export Incentive Program (DEIP).
4/ Milk equivalent, fat basis. 5/ Hard ice cream, ice milk, & hard sherbet. 6/ Based on average milk price after adjustment for price support deductions.
7/ Estimated. — = not available.

Information contact: LeVerne T. Williams (202) 219-0770.

Table 15.—Wool

	Annual			1991					1993	
	1990	1991	1992	IV	I	II	III	IV	I	
U.S. wool price, (cts./lb.) 1/	256	199	204	182	209	222	210	176	146	
Imported wool price, (cts./lb.) 2/	287	187	210	222	250	233	203	189	171	
U.S. mill consumption, scoured										
Apparel wool (1,000 lb.)	120,622	137,187	139,715	33,916	36,929	36,045	34,462	32,279	—	
Carpet wool (1,000 lb.)	12,124	14,352	14,726	3,588	4,580	3,623	3,145	3,378	—	

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60–22.04 microns) staple 2–3/4" & up. 2/ Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. — = not available.

Information contact: John Lawler (202) 219-0840.

Table 16.—Meat Animals

	Annual			1992					1993	
	1990	1991	1992	Feb	Sept	Oct	Nov	Dec	Jan	Feb
Cattle on feed (7 States)										
Number on feed (1,000 head) 1/	8,378	8,992	8,397	8,203	8,968	7,495	8,584	8,894	9,073	9,065
Placed on feed (1,000 head)	21,030	19,704	20,498	1,492	2,179	2,658	1,843	1,694	1,611	1,262
Marketings (1,000 head)	19,198	19,066	18,523	1,420	1,586	1,493	1,442	1,414	1,489	1,431
Other disappearance (1,000 head)	1,218	1,233	1,199	120	68	76	91	101	130	110
Beef steer—corn price ratio.										
Omaha 2/	32.8	31.8	33.3	31.0	35.1	37.4	38.0	38.8	39.6	40.0
Hog—corn price ratio, Omaha 2/	23.1	21.1	19.0	16.7	20.3	21.3	21.0	21.2	20.7	22.2
Market Prices (\$/cwt)										
Slaughter cattle										
Choice steers, Omaha 1,000–1,100 lb.	77.40	73.83	74.65	75.71	73.68	74.13	74.41	76.58	79.15	80.38
Choice steers, Neb. Direct, 1,100–1,300 lb.	78.56	74.28	75.36	78.75	74.44	75.12	75.11	77.34	79.01	80.34
Boning utility cows, Sioux Falls	53.80	50.31	44.84	45.25	48.43	45.69	42.09	44.71	46.50	47.25
Feeder cattle										
Medium no. 1, Oklahoma City 600–700 lb.	92.15	92.74	85.57	83.95	87.48	85.23	85.60	86.67	89.92	89.08
Slaughter hogs										
Barrows & gilts, Iowa, S. Minn.	55.32	49.69	43.05	41.05	42.68	42.69	42.03	42.73	42.18	44.81
Feeder pigs										
S. Mo. 40–50 lb. (per head)	51.46	39.84	31.71	36.72	31.18	32.44	30.69	29.78	34.63	48.17
Slaughter sheep & lambs										
Lambs, Choice, San Angelo	55.54	53.21	61.00	57.69	63.61	52.81	58.93	67.25	69.88	73.38
Ewes, Good, San Angelo	35.21	31.88	35.39	40.88	32.39	29.56	32.92	40.75	39.94	43.44
Feeder lambs										
Choice, San Angelo	62.95	63.54	62.09	70.00	55.43	52.94	58.75	71.13	73.63	76.09
Wholesale meat prices, Midwest										
Boxed beef cut-out value	123.21	118.31	116.73	119.85	114.40	115.51	115.26	119.95	122.69	122.13
Canner & cutter cow beef	99.96	99.42	93.85	95.60	93.23	90.85	88.13	95.31	96.58	97.23
Pork loins, 14–18 lb. 3/	117.52	108.39	101.41	99.13	102.98	96.98	89.84	98.22	98.22	100.05
Pork bellies, 12–14 lb.	53.80	47.79	30.39	29.44	29.09	29.13	30.48	28.80	31.97	33.22
Hams, skinned, 17–20 lb.	84.87	75.68	67.42	69.15	73.70	78.58	82.45	72.67	61.98	68.83
All fresh beef retail price 4/	262.48	271.05	266.87	266.10	266.37	267.75	267.14	266.95	270.43	272.48
Commercial slaughter (1,000 head) 5/										
Cattle	33,241	32,690	32,873	2,440	2,811	2,864	2,580	2,703	2,669	2,466
Steers	16,587	16,728	17,135	1,255	1,459	1,433	1,271	1,383	1,334	1,264
Heifers	10,090	9,725	9,236	690	808	802	706	710	753	690
Cows	5,920	5,623	5,848	450	482	584	531	580	533	466
Bulls & stage	644	614	653	45	81	64	51	50	49	48
Calves	1,789	1,438	1,371	113	110	114	113	124	104	99
Sheep & lambs	5,654	5,722	5,493	437	489	470	428	478	393	395
Hogs	85,138	88,169	94,888	7,332	8,420	8,792	7,986	8,360	7,832	7,092
Commercial production (mil. lb.)										
Beef	22,634	22,800	22,968	1,708	1,996	2,015	1,784	1,855	1,823	1,677
Veal	318	296	299	25	23	24	23	26	22	21
Lamb & mutton	358	358	343	28	30	29	27	29	25	25
Pork	15,300	15,948	17,185	1,329	1,511	1,588	1,455	1,524	1,435	1,290

	Annual			1991	1992				1993	
	1990	1991	1992	IV	I	II	III	IV	I	II
Cattle on feed (13 States)										
Number on feed (1,000 head) 1/	9,943	10,827	10,135	8,620	10,135	9,693	8,847	8,920	10,884	—
Placed on feed (1,000 head)	24,803	23,208	24,246	7,086	5,403	5,273	6,107	7,453	—	—
Marketings (1,000 head)	22,526	22,383	22,061	5,262	5,441	5,875	5,766	5,179	5,610	—
Other disappearance (1,000 head)	1,393	1,517	1,438	309	404	444	268	320	—	—
Hogs & pigs (10 States) 6/										
Inventory (1,000 head) 1/	42,200	45,735	47,940	47,080	45,735	44,800	47,255	49,175	47,440	46,880
Breeding (1,000 head) 1/	5,275	5,610	5,800	5,680	5,610	5,555	5,845	5,840	5,740	5,850
Market (1,000 head) 1/	36,925	40,125	42,140	41,400	40,125	39,245	41,410	43,335	41,700	41,030
Farrowings (1,000 head)	8,960	9,516	9,938	2,348	2,296	2,663	2,521	2,458	2,340	2,710
Pig crop (1,000 head)	70,589	75,330	80,490	18,551	18,532	21,570	20,559	19,829	19,156	—

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Prior to 1984, 8–14 lb.; 1984 & 1985, 14–17 lb.; beginning 1986, 14–18 lb. 4/ New series estimating the composite Price of all beef grades & ground beef sold by retail stores. This new series is in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 8. 5/ Classes estimated. 6/ Quarters are Dec. of preceding year—Feb. (I), Mar.–May (II), June–Aug. (III), & Sept.–Nov. (IV). May not add to NASS totals due to rounding. — = not available. * Intentions.

Information contact: Polly Cochran (202) 219-0767.

Crops & Products

Table 17.—Supply & Utilization^{1,2}

	Area			Yield	Production	Total supply	Feed and residual	Other domestic use	Ex-ports	Total use	Ending stocks	Farm price
	Set aside	Planted	Harvested									
	3/					4/						5/
	Mil. acres		Bu./acre					Mil. bu.				\$/bu
Wheat												
1987/88	23.9	66.8	55.9	37.7	2,108	3,945	290	806	1,588	2,684	1,261	2.57
1988/89	22.4	65.5	53.2	34.1	1,812	3,096	150	828	1,415	2,394	702	3.72
1989/90	9.6	76.6	62.2	32.7	2,037	2,762	144	849	1,232	2,225	536	3.72
1990/91*	7.6	77.2	69.3	39.5	2,736	3,309	499	875	1,068	2,443	868	2.61
1991/92*	15.9	69.9	57.7	34.3	1,981	2,868	257	879	1,281	2,418	472	3.00
1992/93*	7.3	72.3	62.4	38.4	2,459	2,999	250	903	1,325	2,478	520	3.20-3.30
	Mil. acres		Lb./acre					Mil. cwt (rough equiv.)				\$/cwt
Rice												
1987/88	1.57	2.36	2.33	5,555	129.6	184.0	—	8/ 80.4	72.2	152.8	31.4	7.27
1988/89	1.09	2.93	2.90	6,514	159.9	195.1	—	8/ 82.4	85.9	168.4	28.7	6.83
1989/90	1.18	2.73	2.69	6,749	154.5	185.0	—	8/ 82.1	77.2	159.3	26.4	7.35
1990/91*	1.02	2.90	2.82	5,529	156.1	187.2	—	8/ 91.7	70.9	162.7	24.6	6.70
1991/92*	0.9	2.88	2.76	5,674	167.6	187.3	—	8/ 93.7	68.4	160.1	27.3	7.58
1992/93*	0.4	3.17	3.13	5,722	179.1	212.1	—	8/ 97.8	78.0	173.8	38.3	6.10-6.30
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Corn												
1987/88	23.1	68.2	59.5	119.8	7,131	12,016	4,796	1,243	1,716	7,757	4,259	1.94
1988/89	20.5	67.7	58.3	84.6	4,929	9,191	3,941	1,293	2,026	7,260	1,930	2.54
1989/90	10.8	72.2	64.7	110.3	7,525	9,458	4,389	1,350	2,368	8,113	1,344	2.36
1990/91*	10.7	74.2	67.0	118.5	7,934	9,282	4,663	1,373	1,725	7,761	1,521	2.28
1991/92*	7.4	78.0	68.8	108.6	7,475	9,018	4,878	1,454	1,584	7,916	1,100	2.37
1992/93*	5.3	79.3	72.1	131.4	9,479	10,582	5,250	1,495	1,650	8,395	2,187	1.95-2.15
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Sorghum												
1987/88	4.1	11.8	10.5	89.4	731	1,474	555	25	232	811	663	1.70
1988/89	3.9	10.3	9.0	63.8	577	1,239	466	23	311	800	440	2.27
1989/90	3.3	12.6	11.1	55.4	615	1,055	517	15	303	835	220	2.10
1990/91*	3.3	10.5	9.1	63.1	673	793	410	9	232	651	143	2.12
1991/92*	2.5	11.1	9.9	59.3	585	727	374	8	292	674	53	2.25
1992/93*	2.0	13.3	12.2	72.8	884	937	500	8	275	783	155	1.80-2.00
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Barley												
1987/88	2.9	10.9	10.0	52.4	521	869	253	174	121	548	321	1.81
1988/89	2.8	9.8	7.6	38.0	290	622	171	175	79	425	198	2.80
1989/90	2.3	9.1	8.3	48.8	404	814	193	175	84	453	161	2.42
1990/91*	2.9	8.2	7.5	56.1	422	598	205	176	61	461	135	2.14
1991/92*	2.2	8.9	8.4	55.2	464	624	230	171	94	498	129	2.10
1992/93*	2.3	7.8	7.3	62.4	456	597	195	165	80	440	157	2.00-2.05
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Oats												
1987/88	0.8	17.9	6.9	54.3	374	552	358	82	1	440	112	1.56
1988/89	0.3	13.9	5.5	39.3	218	392	194	100	1	294	98	2.61
1989/90	0.4	12.1	6.9	54.3	374	538	266	115	1	381	157	1.49
1990/91*	0.2	10.4	5.9	60.1	358	578	288	120	1	407	171	1.14
1991/92*	0.6	8.7	4.8	50.7	243	489	235	125	2	362	128	1.20
1992/93*	0.7	8.0	4.5	65.6	295	472	230	125	5	380	112	1.30-1.35
	Mil. acres		Bu./acre					Mil. bu.				\$/bu.
Soybeans												
1987/88	0	58.2	57.2	33.9	1,938	2,375	7/ 97	1,174	802	2,073	302	5.88
1988/89	0	58.8	57.4	27.0	1,549	1,855	7/ 88	1,058	527	1,673	182	7.42
1989/90	0	60.8	59.5	32.3	1,924	2,109	7/ 101	1,148	823	1,870	239	5.69
1990/91*	0	57.8	58.5	34.1	1,926	2,168	7/ 95	1,187	557	1,839	329	5.74
1991/92*	0	59.2	58.0	34.2	1,987	2,319	7/ 102	1,254	685	2,041	278	5.58
1992/93*	0	59.3	58.4	37.6	2,197	2,477	7/ 112	1,265	760	2,137	340	5.45-5.55
	Mil. acres		Bu./acre					Mil. lbs.				\$/ Cts./lb.
Soybean oil												
1987/88	—	—	—	—	12,974	14,895	—	10,930	1,873	12,803	2,092	22.67
1988/89	—	—	—	—	11,737	13,967	—	10,591	1,661	12,252	1,715	21.10
1989/90	—	—	—	—	13,004	14,741	—	12,083	1,353	13,436	1,305	22.30
1990/91*	—	—	—	—	13,408	14,730	—	12,164	780	12,944	1,785	21.00
1991/92*	—	—	—	—	14,345	16,132	—	12,245	1,648	13,893	2,239	19.10
1992/93*	—	—	—	—	13,684	15,925	—	12,676	1,625	14,300	1,525	20.0-22.0
								1,000 tons				\$/ \$/ton
Soybean meal												
1987/88	—	—	—	—	28,080	28,300	—	21,293	6,854	28,147	153	239
1988/89	—	—	—	—	24,943	25,100	—	19,857	5,270	24,927	173	252
1989/90	—	—	—	—	27,719	27,900	—	22,263	5,310	27,582	318	188
1990/91*	—	—	—	—	28,325	28,888	—	22,934	5,489	28,403	285	161
1991/92*	—	—	—	—	29,831	30,183	—	23,103	6,850	29,953	230	189
1992/93*	—	—	—	—	30,095	30,400	—	23,750	8,350	30,100	300	175-190

See footnotes at end of table.

Table 17.—Supply & Utilization, continued

	Area			Yield	Production	Total supply 4/	Feed and residual	Other domestic use	Ex-ports	Total use	Ending Stocks	Farm price 5/
	Set Aside 3/	Planted	Harvested									
	Mil. acres			Lb./acre			Mil. bales			Cts./lb.		
Cotton 10/												
1987/88	4.0	10.4	10.0	708	14.8	19.8	---	7.0	6.6	14.2	5.8	84.30
1988/89	2.2	12.5	11.9	619	16.4	21.2	---	7.8	6.1	13.9	7.1	56.60
1989/90	3.5	10.6	9.5	614	12.2	19.3	---	8.8	7.7	16.5	3.0	85.60
1990/91*	2.0	12.3	11.7	634	16.5	18.5	---	8.7	7.8	16.5	2.3	87.10
1991/92*	1.2	14.1	13.0	652	17.6	20.0	---	9.6	6.7	16.3	3.7	56.80
1992/93*	1.7	13.3	11.2	700	16.3	20.0	---	9.8	8.1	15.9	4.2 11/	53.60

* April 12, 1993 Supply & Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats; August 1 for cotton & rice; September 1 for soybeans, corn, & sorghum; October 1 for soybean meal & soybean oil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres; 1 metric ton = 2204.622 pounds; 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, & 4.59480-pound bales of cotton. 3/ Includes diversion, acreage reduction, 50-82, & 0-92 programs. 0/92 & 50/92 set-aside includes idled acreage & acreage planted to minor oilseeds, sesame, and crambe. 4/ Includes imports. 5/ Marketing-year weighted average price received by farmers. Does not include an allowance for loans outstanding & Government purchases. 6/ Residual included in domestic use. 7/ Includes seed. 8/ Simple average of crude soybean oil, Decatur. 9/ Simple average of 48 percent, Decatur. 10/ Upland & extra long staple. Stocks estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. 11/ Weighted average for August-November; not a projection for the marketing year. — = not available or not applicable.

Information contact: Commodity Economics Division, Crops Branch (202) 219-0840

Table 18.—Cash Prices, Selected U.S. Commodities

	Marketing year 1/				1992				1993	
	1988/89	1989/90	1990/91	1991/92	Feb	Oct	Nov	Dec	Jan	Feb
Wheat, No. 1 HRW, Kansas City (\$/bu.) 2/	4.17	4.22	2.94	3.77	4.51	3.60	3.78	3.81	3.97	3.75
Wheat, DNS, Minneapolis (\$/bu.) 3/	4.36	4.18	3.06	3.82	4.56	3.85	3.94	3.88	4.05	3.87
Rice, S.W. La. (\$/cwt) 4/	14.85	15.55	15.25	16.48	17.30	14.70	14.45	14.25	13.40	13.00
Corn, no. 2 yellow, 30 day, Chicago (\$/bu.)	2.68	2.54	2.41	2.52	2.67	2.06	2.13	2.17	2.18	2.14
Sorghum, no. 2 yellow, Kansas City (\$/cwt)	4.17	4.21	4.08	4.36	4.62	3.60	3.61	3.70	3.70	3.66
Barley, feed, Duluth (\$/bu.) 5/	2.32	2.20	2.13	2.17	2.28	2.11	2.08	2.06	2.08	2.08
Barley, malting, Minneapolis (\$/bu.)	4.11	3.28	2.42	2.38	2.51	2.39	2.35	2.36	2.36	2.32
U.S. price, SLM, 1-1/16 in. (cts./lb.) 6/	57.7	69.8	74.8	56.7	50.8	49.5	50.0	51.9	53.7	55.4
Northern Europe Prices Index (cts./lb.) 7/	66.4	82.9	82.9	62.9	56.3	52.9	52.6	54.3	57.4	60.8
U.S. M 1-3/32 in. (cts./lb.) 8/	69.2	83.6	86.2	66.3	60.3	56.6	60.6	61.9	63.4	68.1
Soybeans, no. 1 yellow, 30 day, Chicago (\$/bu.)	7.41	5.96	5.76	5.75	5.73	5.33	5.56	5.66	6.73	6.56
Soybean oil, crude, Decatur (cts./lb.)	21.10	22.30	21.00	19.10	18.88	18.36	20.10	20.52	21.23	20.72
Soybean meal, 48% protein, Decatur (\$/ton) 9/	252.40	186.50	181.40	189.20	185.40	180.60	181.90	187.60	188.75	179.90

1/ Beginning June 1 for wheat & barley; Aug. 1 for rice & cotton; Sept. 1 for corn, sorghum & soybeans; Oct. 1 for soybean meal & oil. 2/ Ordinary protein. 3/ 14% protein. 4/ Long grain, milled basis. 5/ Beginning Mar. 1987 reporting point changed from Minneapolis to Duluth. 6/ Average spot market. 7/ Liverpool Cotton "A" Index; average of five lowest prices of 13 selected growths. 8/ Memphis territory growths. 9/ Note change to 48% protein. NQ = no quotation.

Information contacts: Wheat, rice, & feed grains, Joy Harwood (202) 219-0840; Cotton, Lee Meyer (202) 219-0840; Soybeans, Brenda Toland, (202) 219-0840.

Table 19.—Farm Programs, Price Supports, Participation & Payment Rates

	Target price	Basic loan rate	Findley or announced loan rate 1/	Payment rates		Effective base acres 2/	Program 3/	Participation rate 4/		
				Total deficiency	Paid land diversion					
					Mandatory	Optional				
				\$/bu.			Percent of base	Percent of base		
Wheat										
1987/88	4.38	2.85	2.28	1.81	—	—	87.6	27.5/0/0		
1988/89	4.23	2.76	2.21	0.69	—	—	84.8	27.5/0/0		
1989/90	4.10	2.58	2.06	0.32	—	—	82.3	10/0/0		
1990/91 5/	4.00	2.44	1.95	1.28	—	—	80.5	6/ 5/0/0		
1991/92	4.00	2.52	2.04	*1.35	—	—	79.2	15/0/0		
1992/93	4.00	2.58	2.21	**0.81	—	—	78.9	5/0/0		
1993/94	4.00	2.86	2.45	***1.05	—	—	—	0/0/0		
Rice										
1987/88	11.66	6.84	7/ 5.15	4.82	—	—	4.2	35/0/0		
1988/89	11.15	6.83	7/ 6.50	4.31	—	—	4.2	25/0/0		
1989/90	10.80	6.50	7/ 6.00	3.58	—	—	4.2	25/0/0		
1990/91 5/	10.71	6.50	7/ 5.40	4.18	—	—	4.2	20/0/0		
1991/92	10.71	6.50	7/ 5.85	3.07	—	—	4.2	5/0/0		
1992/93	10.71	6.50	—	**4.21	—	—	4.1	0/0/0		
1993/94	10.71	6.50	—	***4.21	—	—	—	5/0/0		
Corn										
1987/88	3.03	2.28	1.82	1.09	—	2.00	81.5	20/0/15		
1988/89	2.93	2.21	1.77	0.36	—	1.75	82.9	20/0/10		
1989/90	2.84	2.06	1.65	0.58	—	—	82.7	10/0/0		
1990/91 5/	2.75	1.96	1.57	0.51	—	—	82.6	10/0/0		
1991/92	2.75	1.89	1.62	0.41	—	—	82.7	7.5/0/0		
1992/93	2.75	2.01	1.72	**0.73	—	—	82.1	5/0/0		
1993/94	2.75	1.99	1.72	***0.72	—	—	—	10/0/0		
Sorghum										
1987/88	2.88	2.17	1.74	1.14	—	1.90	17.4	8/ 20/0/15		
1988/89	2.78	2.10	1.68	0.48	—	1.65	16.8	20/0/10		
1989/90	2.70	1.96	1.57	0.86	—	—	16.2	10/0/0		
1990/91 5/	2.61	1.86	1.49	0.56	—	—	15.4	10/0/0		
1991/92	2.61	1.80	1.54	0.37	—	—	13.5	7.5/0/0		
1992/93	2.61	1.91	1.63	**0.70	—	—	13.8	5/0/0		
1993/94	2.61	1.89	1.63	***0.70	—	—	—	5/0/0		
Barley										
1987/88	2.60	1.86	1.49	0.79	—	1.60	12.6	8/ 20/0/15		
1988/89	2.51	1.80	1.44	0.00	—	1.40	12.5	20/0/10		
1989/90	2.44	1.68	1.34	0.00	—	—	12.3	10/0/0		
1990/91 5/	2.36	1.60	1.28	0.20	—	—	11.9	10/0/0		
1991/92	2.36	1.54	1.32	0.62	—	—	11.5	7.5/0/0		
1992/93	2.36	1.64	1.40	**0.58	—	—	11.1	5/0/0		
1993/94	2.36	1.62	1.40	***0.52	—	—	—	0/0/0		
Oats										
1987/88	1.60	1.17	0.94	0.20	—	0.80	8.4	8/ 20/0/15		
1988/89	1.55	1.14	0.91	0.00	—	—	7.9	5/0/0		
1989/90	1.50	1.06	0.85	0.00	—	—	7.8	5/0/0		
1990/91 5/	1.45	1.01	0.81	0.32	—	—	7.5	5/0/0		
1991/92	1.45	0.97	0.83	0.35	—	—	7.3	0/0/0		
1992/93	1.45	1.03	0.88	**0.17	—	—	7.2	0/0/0		
1993/94	1.45	1.02	0.88	***0.15	—	—	—	0/0/0		
Soybeans 9/										
1987/88	—	—	4.77	—	—	—	—	—		
1988/89	—	—	4.77	—	—	—	—	—		
1989/90	—	—	4.53	—	—	—	10/ 10/25	—		
1990/91 5/	—	—	4.50	—	—	—	10/ 0/25	—		
1991/92	—	—	5.02	—	—	—	10/ 0/25	—		
1992/93	—	—	5.02	—	—	—	10/ 0/25	—		
1993/94	—	—	5.02	—	—	—	10/ 0/25	—		
Upland cotton										
1987/88	79.4	52.25	11/ 52.25	17.3	—	—	14.5	25/0/0		
1988/89	75.9	51.80	11/ 51.80	19.4	—	—	14.5	12.5/0/0		
1989/90	73.4	50.00	11/ 50.00	13.1	—	—	14.6	25/0/0		
1990/91 5/	72.9	50.27	11/ 50.27	7.3	—	—	14.4	12.5/0/0		
1991/92 12/	72.9	50.77	11/ 47.23	10.1	—	—	14.6	5/0/0		
1992/93	72.9	52.35	11/ —	**20.3	—	—	14.9	10/0/0		
1993/94	72.9	52.35	11/ —	***20.55	—	—	—	7.5/0/0		

1/ There are no Findley loan rates for rice or cotton. See footnotes 7/ & 11/. 2/ National effective crop acreage base as determined by ASCS. Net of CRP. 3/ Program requirements for participating producers (mandatory acreage reduction program/mandatory paid land diversion/optional paid land diversion). Acreage idled must be devoted to a conserving use to receive program benefits. 4/ Percentage of effective base acres enrolled in acreage reduction programs. 5/ Payments & loans were reduced by 1.4 percent in 1990/91 due to Greiner-Rudman-Hollings. Budget Reconciliation Act reductions to deficiency payments rates were also in effect in that year. Data do not include these reductions. 6/ Under 1990 modified contracts, participating producers plant up to 105 percent of their wheat base acres. For every acre planted above 95 percent of base, the acreage used to compute deficiency payments was cut by 1 acre. 7/ A marketing loan has been in effect for rice since 1985/86. Loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly). However, loans cannot be repaid at less than a specified fraction of the loan rate. Data refer to market-year average loan repayment rates. 8/ The sorghum, oats, & barley programs are the same as for corn except as indicated. 9/ There are no target prices, base acres, acreage reduction programs, or deficiency payment rates for soybeans. 10/ Nominal percentage of program crop base acres permitted to shift into soybeans without loss of base. 11/ A marketing loan has been in effect for cotton since 1985/87. In 1987/88 & after, loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly; Plan B). Starting in 1991/92, loans cannot be repaid at less than 70 percent of the loan rate. Data refer to annual average loan repayment rates. 12/ A marketing certificate program was implemented on Aug. 1, 1991. — = not available.

* For wheat, the 1991/92 rate is the total deficiency payment rate for the "regular" program. For the winter wheat option, the rate is \$1.25.

** For wheat, corn, sorghum, barley, and oats, regular deficiency payment rate based on the 5-month price. For rice and upland cotton, total deficiency payment rate.

*** Estimated total deficiency payment rate. Minimum guaranteed payment rate for 0/92 (wheat & feed grains) & 50/92 (rice and upland cotton) programs. Sign-up for 1993 programs was March 1–April 30, 1993.

Information contact: Joy Harwood (202) 219-0840.

Table 20.—Fruit

	1984	1985	1986	1987	1988	1989	1990	1991 P	1992 P
Citrus 1/ Production (1,000 ton)	10,832	10,525	11,058	11,993	12,761	13,186	10,860	11,285	12,388
Per capita consumpt. (lbs.) 2/	22.6	21.6	24.3	24.0	25.4	25.1	22.1	19.9	—
Noncitrus 3/ Production (1,000 tons)	14,301	14,191	13,874	16,011	15,893	16,365	15,656	15,801	16,939
Per capita consumpt. (lbs.) 2/	68.3	65.3	68.8	73.5	72.0	73.8	70.5	70.7	—
	1992							1993	
	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb
F.o.b. shipping point prices									
Apples (\$/carton) 4/	15.50	16.56	25.70	16.73	15.38	14.46	13.60	14.50	12.33
Pears (\$/box) 5/	15.10	14.30	—	—	13.05	13.54	13.88	16.00	16.00
Grower prices									
Oranges (\$/box) 6/	4.75	2.06	1.65	1.37	1.79	3.80	2.90	2.39	2.11
Grapefruit (\$/box) 6/	4.45	4.00	3.32	3.73	7.09	4.11	4.66	2.42	1.46
Stocks, ending									
Fresh apples (mil. lbs.)	327.1	106.5	33.5	3,479.5	5,580.0	4,988.3	4,077.3	3,433.1	2,767.9
Fresh pears (mil. lbs.)	4.7	49.4	139.1	523.1	380.4	276.7	223.4	174.2	128.1
Frozen fruits (mil. lbs.)	868.1	803.1	981.0	935.3	1,073.5	1,008.2	888.4	823.3	757.3
Frozen orange juice (mil. lbs.)	1,133.4	978.0	874.9	742.0	666.2	638.0	892.9	1,135.9	1,235.5

1/ 1991 indicated 1990/91 season. 2/ Fresh per capita consumption. 3/ Calendar year. 4/ Red delicious, Washington, extra fancy, carton tray pack, 125's. 5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 135's. 6/ U.S. equivalent on-tree returns. P = preliminary. — = not available.

Information contact: Wynne Napper (202) 219-0884.

Table 21.—Vegetables

	Calendar year									
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 P
Production										
Total vegetables (1,000 cwt)	403,509	456,334	453,030	448,829	478,381	488,779	542,437	561,704	564,582	534,951
Fresh (1,000 cwt) 1/ 3/	185,782	201,817	203,549	203,165	220,539	228,397	239,281	239,104	229,506	236,140
Processed (tons) 2/ 3/	10,888,350	12,725,880	12,474,040	12,273,200	12,892,100	12,019,110	15,157,790	16,130,020	16,753,820	14,940,550
Mushrooms (1,000 lbs.) 4/	561,531	595,681	587,956	614,393	631,819	667,759	714,992	749,151	738,632	—
Potatoes (1,000 cwt)	333,726	362,039	406,609	361,743	389,320	356,438	370,444	402,110	417,822	411,636
Sweet potatoes (1,000 cwt)	12,083	12,902	14,573	12,388	11,811	10,945	11,358	12,594	11,203	11,760
Dry edible beans (1,000 cwt)	16,520	21,070	22,298	22,960	26,031	19,253	23,729	32,379	33,785	22,047
	1992							1993		
	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb
Shipments										
Fresh (1,000 cwt) 5/	28,050	29,058	25,358	15,813	18,112	14,931	16,829	19,492	19,087	18,977
Potatoes (1,000 cwt)	14,843	11,768	10,946	9,418	13,305	11,363	11,967	13,641	13,376	11,180
Sweet potatoes (1,000 cwt)	176	184	246	130	346	359	771	539	291	270

1/ Includes fresh production of asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 2/ Includes processing production of snap beans, sweet corn, green peas, tomatoes, cucumbers (for pickles), asparagus, broccoli, carrots, & cauliflower. 3/ Asparagus & cucumber estimates were not available for 1982 & 1983. 4/ Fresh & processing agnecus mushrooms only. Excludes specialty varieties. Crop year July 1 - June 30. 5/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, bell peppers, squash, tomatoes, cantaloupes, honeydews, & watermelons. P = preliminary.

Information contacts: Gary Lucier or John Love (202) 219-0884.

Table 22.—Other Commodities

	Annual					1991					1992			
	1988	1989	1990	1991	1992	Oct-Dec	Jan-Mar	Apr-June	July-Sept	Oct-Dec				
Sugar														
Production 1/	7,087	6,841	6,334	7,133	7,501	3,655	2,136	716	722	3,827				
Deliveries 1/	8,188	8,340	8,661	8,704	8,920	2,242	2,007	2,208	2,409	2,296				
Stocks, ending 1/	3,132	2,847	2,729	3,039	3,220	3,039	3,624	2,757	1,451	3,220				
Coffee														
Composite green price N.Y. (cts./lb.)	119.59	95.17	76.93	70.09	55.30	64.94	59.19	51.72	48.36	61.94				
Imports, green bean equiv. (mil. lbs.) 2/	2,072	2,685	2,715	2,553	2,989	699	840	720	704	705				
	Annual				1991	1992								
	1989	1990	1991	Nov	June	July	Aug	Sept	Oct	Nov				
Tobacco														
Prices at auctions 3/														
Flue-cured (\$/lb.)	167.4	167.3	172.3	168.5	—	155.0	160.0	182.5	182.0	172.7				
Burley (\$/lb.)	167.2	175.3	178.8	182.5	—	—	—	—	—	182.7				
Domestic consumption 4/														
Cigarettes (bil.)	540.0	523.1	518.3	57.1	51.7	38.3	43.7	43.0	44.7	44.2				
Large cigars (mil.)	2,467.6	2,343.5	2,231.9	191.4	217.2	167.7	185.7	194.3	177.9	159.6				

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured, Oct.-Sept. for burley. 4/ Taxable removals. — = not available.

Information contacts: Sugar, Peter Buzzanell (202) 219-0886. Coffee, Fred Gray (202) 219-0888. Tobacco, Verner Gries (202) 219-0890.

World Agriculture

Table 23.—World Supply & Utilization of Major Crops, Livestock & Products

	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92 F	1992/93 F
Million units							
Wheat							
Area (hectares)	228.1	219.7	217.4	225.8	231.4	222.1	221.3
Production (metric tons)	524.1	495.7	495.0	532.9	587.8	543.6	558.4
Exports (metric tons) 1/	80.7	107.1	97.9	97.0	94.4	109.1	99.3
Consumption (metric tons) 2/	515.9	524.9	525.4	529.9	565.3	560.6	551.3
Ending stocks (metric tons) 3/	177.6	148.4	118.0	120.9	143.7	126.7	133.7
Coarse grains							
Area (hectares)	335.3	323.1	323.2	320.8	313.8	317.6	320.0
Production (metric tons)	822.2	783.9	721.1	790.2	819.9	797.4	848.4
Exports (metric tons) 1/	82.8	84.7	94.0	102.9	87.3	93.5	88.9
Consumption (metric tons) 2/	796.3	806.8	785.4	814.4	807.7	803.7	821.8
Ending stocks (metric tons) 3/	235.2	212.4	148.0	123.9	136.1	129.8	156.4
Rice, milled							
Area (hectares)	145.1	141.7	145.4	146.7	147.1	145.9	146.4
Production (metric tons)	316.7	314.5	330.0	342.6	350.6	348.1	351.8
Exports (metric tons) 4/	12.9	11.9	15.0	12.2	12.8	14.9	14.3
Consumption (metric tons) 2/	320.7	320.0	327.6	335.9	345.5	352.7	354.0
Ending stocks (metric tons) 3/	61.4	45.9	48.3	55.0	60.0	55.4	53.2
Total grains							
Area (hectares)	708.5	684.5	686.0	693.3	692.3	685.6	687.7
Production (metric tons)	1,663.0	1,594.1	1,546.1	1,665.7	1,758.3	1,689.1	1,758.6
Exports (metric tons) 1/	186.4	203.7	206.9	212.1	194.5	217.5	202.5
Consumption (metric tons) 2/	1,632.9	1,651.7	1,638.4	1,680.2	1,718.5	1,717.0	1,727.1
Ending stocks (metric tons) 3/	464.2	406.7	314.3	299.8	339.8	311.9	343.3
Oilseeds							
Crush (metric tons)	161.8	168.4	164.5	172.0	177.4	185.4	185.4
Production (metric tons)	194.9	210.5	201.7	212.5	216.0	223.7	226.3
Exports (metric tons)	37.7	39.5	31.5	35.5	33.0	36.9	38.8
Ending stocks (metric tons)	23.3	24.0	22.1	23.3	22.8	21.5	22.8
Meals							
Production (metric tons)	110.7	115.4	111.3	117.1	120.0	124.9	125.7
Exports (metric tons)	36.7	35.8	37.4	38.5	39.4	41.8	40.5
Oils							
Production (metric tons)	50.4	53.3	53.3	57.1	58.2	60.4	60.7
Exports (metric tons)	16.9	17.5	18.1	19.8	20.2	20.1	20.1
Cotton							
Area (hectares)	29.2	30.8	33.7	31.5	33.1	34.7	32.4
Production (bales)	70.6	81.1	84.4	79.9	87.0	96.0	83.4
Exports (bales)	25.9	23.1	25.8	23.9	23.0	22.4	22.2
Consumption (bales)	82.8	84.1	85.3	86.7	85.5	85.0	84.9
Ending stocks (bales)	35.7	32.8	31.9	26.3	28.6	40.6	38.8
	1987	1988	1989	1990	1991	1992	1993 F
Red meat							
Production (metric tons)	112.9	116.6	118.1	120.3	121.3	121.3	123.1
Consumption (metric tons)	111.0	114.6	116.7	118.1	119.3	119.8	121.5
Exports (metric tons) 1/	6.7	7.4	7.6	7.6	8	7.8	8.1
Poultry 5/							
Production (metric tons)	31.3	32.7	34.0	35.8	37.8	39.2	40.9
Consumption (metric tons)	29.9	31.0	32.7	33.9	35.8	37.1	38.8
Exports (metric tons) 1/	1.3	1.5	1.7	1.8	2.1	2.2	2.3
Dairy							
Milk production (metric tons)	425.7	428.9	434.7	442.0	429.4	415.0	408.0

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1987 data correspond with 1986/87, etc. 5/ Poultry excludes the Peoples Republic of China before 1986. P = preliminary. F = forecast.

Information contacts: Crops, Carol Whitton (202) 219-0824; red meat & poultry, Linda Bailey (202) 219-1285; dairy, Sara Short (202) 219-0770.

U.S. Agricultural Trade

Table 24.—Prices of Principal U.S. Agricultural Trade Products

	Annual			1992					1993	
	1990	1991	1992	Feb	Sept	Oct	Nov	Dec	Jan	Feb
Export commodities										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	3.72	3.52	4.13	4.83	3.79	3.85	4.03	4.03	4.25	4.06
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	2.79	2.75	2.66	2.91	2.50	2.42	2.44	2.42	2.43	2.42
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	2.65	2.69	2.83	2.98	2.41	2.33	2.39	2.45	2.44	2.42
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	6.24	6.05	6.01	6.06	5.82	5.67	5.84	5.96	6.08	6.03
Soybean oil, Decatur (cts./lb.)	22.75	20.14	19.16	18.65	18.10	18.31	19.98	20.58	21.20	20.61
Soybean meal, Decatur (\$/ton)	169.37	172.90	177.79	173.86	174.33	180.63	181.18	188.30	188.18	179.87
Cotton, 7-market avg. spot (cts./lb.)	71.25	69.69	53.90	50.76	53.49	49.47	49.98	51.85	53.72	55.38
Tobacco, avg. price at auction (cts./lb.)	170.57	179.23	173.08	174.92	182.51	181.93	182.97	182.51	179.98	188.53
Rice, f.o.b. mill, Houston (\$/cwt)	15.52	16.46	16.80	17.50	16.50	16.50	16.13	15.63	15.25	15.00
Inedible tallow, Chicago (cts./lb.)	13.54	13.26	14.37	12.63	15.25	15.73	16.75	16.00	15.09	14.69
Import commodities										
Coffee, N.Y. spot (\$/lb.)	0.81	0.71	0.50	0.51	0.40	0.49	0.55	0.66	0.58	0.54
Rubber, N.Y. spot (cts./lb.)	46.28	45.73	46.25	43.95	46.86	47.83	48.00	48.03	48.03	48.30
Cocoa beans, N.Y. (\$/lb.)	0.55	0.52	0.47	0.51	0.47	0.46	0.46	0.44	0.45	0.42

Information contact: Mary Teymourian (202) 219-0824.

Table 25.—Indexes of Real Trade-Weighted Dollar Exchange Rates^{1/}

	1992									1993	
	Apr	May	June	July	Aug	Sept P	Oct P	Nov P	Dec P	Jan P	Feb P
	1985 = 100										
Total U.S. trade 2/	65.0	63.9	59.9	59.7	59.1	59.5	61.9	65.6	65.9	67.2	68.5
Agricultural trade											
U.S. markets	78.2	76.5	75.2	74.7	74.4	74.1	75.2	77.3	77.2	77.9	78.5
U.S. competitors	77.8	77.4	76.8	75.7	75.2	77.3	75.9	77.9	77.7	78.4	79
Wheat											
U.S. markets	100.4	96.8	96.1	95.3	94.5	93.5	94.1	95.7	95.2	95.6	95.8
U.S. competitors	70.9	71.1	69.4	69.2	69.2	74.6	71.4	73.5	73.5	74.2	75.2
Soybeans											
U.S. markets	65.5	63.6	61.8	61.4	60.7	60.4	61.9	64.6	64.5	65.4	66.3
U.S. competitors	57.4	56.5	54.9	54.9	54.2	53.6	53.3	53.6	52.9	52.8	52.5
Corn											
U.S. markets	70.6	67.8	67.7	67.3	67.4	66.4	67.3	69.2	68.9	69.7	70.2
U.S. competitors	60.6	60.0	56.9	56.4	55.8	55.7	56.1	67.7	57.4	57.6	57.8
Cotton											
U.S. markets	74.0	72.7	71.4	71.2	71.2	70.6	71.7	73.3	73.3	74	74.6
U.S. competitors	99.9	100.3	110.7	109.9	109.3	112.1	109.3	110.6	109.6	110	110.1

^{1/} Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of *Agricultural Outlook* for a discussion of the calculations and the weights used. ^{2/} Federal Reserve Board Index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets. P = preliminary.

Information contact: Tim Baxter (202) 219-0718.

Table 26.—Trade Balance

	Fiscal year 1/								Jan
	1986	1987	1988	1989	1990	1991	1992	1993 F	1993
	\$ million								
Exports									
Agricultural	26,312	27,878	35,316	39,590	40,220	37,609	42,417	42,500	3,675
Nonagricultural	179,291	202,911	258,656	301,269	325,059	356,682	377,223	—	30,316
Total 2/	205,603	230,787	293,972	340,859	366,279	394,291	419,640	—	33,991
Imports									
Agricultural	20,884	20,650	21,014	21,476	22,560	22,588	24,323	24,500	2,124
Nonagricultural	342,846	367,374	409,138	441,075	458,101	463,720	487,554	—	39,511
Total 3/	363,730	388,024	430,152	462,551	480,661	486,308	511,877	—	41,635
Trade balance									
Agricultural	5,428	7,226	14,302	18,114	17,660	15,021	18,094	18,000	1,551
Nonagricultural	-163,555	-164,463	-150,482	-139,806	-132,042	-107,038	-110,331	—	-9195
Total	-158,127	-157,237	-136,180	-121,692	-114,382	-92,017	-92,237	—	-7,644

^{1/} Fiscal years begin October 1 & end September 30. Fiscal year 1992 began Oct. 1, 1991 & ended Sept. 30, 1992. ^{2/} Domestic exports including Department of Defense shipments (F.A.S. value). ^{3/} Imports for consumption (customs value). F = forecast. — = not available.

Information contact: Stephen MacDonald (202) 219-0822.

Table 27:—U.S. Agricultural Exports & Imports

	Fiscal year*			Jan	Fiscal year*			Jan
	1991	1992	1993 F	1993	1991	1992	1993 F	1993
	1,000 units				\$ million			
EXPORTS								
Animals, live (no.) 1/	1,235	1,476	--	89	546	567	--	31
Meats & preps., excl. poultry (mt)	938	1,108	2/ 1,000	86	2,773	3,236	--	235
Dairy products (mt) 1/	43	172	--	13	293	638	600	65
Poultry meats (mt)	628	795	800	71	737	915	--	74
Fats, oils, & greases (mt)	1,169	1,392	1,500	97	419	498	--	38
Hides & skins incl. furskins	--	--	--	--	1,451	1,337	--	115
Cattle hides, whole (no.) 1/	21,548	20,822	--	1,672	1,191	1,107	--	96
Mink pelts (no.) 1/	3,941	3,160	--	228	74	52	--	3
Grains & feeds (mt)	94,583	100,744	--	9,334	12,175	13,858	3/ 14,000	1,231
Wheat (mt)	28,792	34,287	35,500	3,033	2,867	4,318	4/ 4,800	404
Wheat flour (mt)	987	816	900	46	191	165	--	11
Rice (mt)	2,395	2,279	2,100	164	747	757	700	47
Feed grains, incl. products (mt)	52,353	50,846	52,500	4,835	5,790	5,793	5,200	490
Feeds & fodders (mt)	10,943	11,267	5/ 11,800	1,084	1,882	2,019	--	193
Other grain products (mt)	1,113	1,449	--	172	697	807	--	86
Fruits, nuts, & preps. (mt)	2,849	3,505	--	239	3,038	3,514	--	218
Fruit juices incl.								
froz. (1,000 hectoliters) 1/	6,311	7,767	--	524	338	427	--	29
Vegetables & preps. (mt)	2,589	2,703	--	194	2,597	2,790	--	236
Tobacco, unmanufactured (mt)	239	246	--	22	1,533	1,568	1,600	120
Cotton, excl. lintars (mt)	1,565	1,494	1,400	119	2,605	2,183	1,800	159
Seeds (mt)	514	701	--	68	617	659	700	84
Sugar, cane or beet (mt)	589	492	--	21	219	154	--	6
Oilseeds & products (mt)	22,295	28,642	--	3,348	5,643	7,156	7,100	800
Oilseeds (mt)	15,815	19,970	--	2,489	3,807	4,743	--	577
Soybeans (mt)	15,139	19,247	19,800	2,428	3,465	4,311	4,300	539
Protein meal (mt)	5,628	7,022	--	713	1,113	1,431	--	139
Vegetable oils (mt)	1,051	1,650	--	145	723	982	--	84
Essential oils (mt)	13	13	--	1	183	184	--	17
Other	92	91	--	7	2,441	2,733	--	217
Total	128,104	142,098	148,000	13,620	37,609	42,417	42,500	3,675
IMPORTS								
Animals, live (no.) 1/	3,168	2,830	--	272	1,131	1,275	1,400	118
Meats & preps., excl. poultry (mt)	1,191	1,134	--	140	3,018	2,684	--	307
Beef & veal (mt)	811	813	800	114	2,025	1,933	1,900	246
Pork (mt)	322	263	260	21	865	825	600	49
Dairy products (mt) 1/	231	232	--	13	767	816	900	48
Poultry & products 1/	--	--	--	--	119	132	--	7
Fats, oils, & greases (mt)	33	46	--	2	19	26	--	2
Hides & skins, incl. furskins 1/	--	--	--	--	153	185	--	19
Wool, unmanufactured (mt)	50	54	--	5	175	167	--	15
Grains & feeds (mt)	4,189	5,446	5,100	348	1,282	1,548	1,600	108
Fruits, nuts, & preps., excl. juices (mt)	5,850	5,883	8,100	526	2,741	2,919	--	263
Bananas & plantains (mt)	3,399	3,626	4,000	296	993	1,083	1,100	83
Fruit juices (1,000 hectoliters) 1/	27,948	26,049	24,000	2,072	737	871	--	52
Vegetables & preps. (mt)	2,416	2,171	--	323	2,183	2,125	2,400	269
Tobacco, unmanufactured (mt)	215	364	180	27	698	1,299	900	83
Cotton, unmanufactured (mt)	18	11	--	1	16	10	--	1
Seeds (mt)	169	174	180	18	173	214	200	22
Nursery stock & cut flowers 1/	--	--	--	--	538	578	--	55
Sugar, cane or beet (mt)	1,785	1,623	--	197	717	633	--	71
Oilseeds & products (mt)	2,077	2,330	--	191	959	1,124	1,300	95
Oilseeds (mt)	445	429	--	32	151	135	--	11
Protein meal (mt)	412	629	--	51	57	84	--	8
Vegetable oils (mt)	1,220	1,273	--	108	750	904	--	77
Beverages excl. fruit								
juices (1,000 hectoliters) 1/	12,987	13,739	--	758	1,858	2,044	--	96
Coffee, tea, cocoa, spices	2,045	2,391	2,320	228	3,294	3,415	--	305
Coffees, incl. products (mt)	1,116	1,330	1,300	110	1,831	1,798	1,800	149
Cocoa beans & products (mt)	700	773	750	89	1,019	1,122	1,100	114
Rubber & allied gums (mt)	792	920	950	96	664	756	800	81
Other	--	--	--	--	1,348	1,503	--	109
Total	--	--	--	--	22,588	24,323	24,500	2,124

*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1992 began Oct. 1, 1991 & ended Sept. 30, 1992. 1/ Not included in total volume and also other dairy products for 1991 & 1992. 2/ Forecasts for footnoted items 2/-6/ are based on slightly different groups of commodities. Fiscal 1991 exports of categories used in the 1991 forecasts were 2/ 676,000 m. tons. 3/ 16,014 million. 4/ 4,426 million i.e. includes flour. 5/ 11,065 million m. tons. 6/ Less than \$500. F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 219-0822.

Table 28.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*			Jan	Change from year* earlier			Jan
	1991	1992	1993 F	1993	1991	1992	1993 F	1993
	\$ million				Percent			
WESTERN EUROPE	7,312	7,740	8,200	875	-1	6	8	6
European Community (EC-12)	6,776	7,194	7,700	839	-1	6	7	7
Belgium-Luxembourg	484	461	—	54	9	-1	—	44
France	571	618	—	99	22	8	—	72
Germany	1,135	1,091	—	96	2	-4	—	2
Italy	675	684	—	84	-4	1	—	-19
Netherlands	1,561	1,813	—	211	-5	18	—	9
United Kingdom	883	882	—	87	16	0	—	17
Portugal	251	240	—	24	-26	-4	—	-35
Spain, Incl. Canary Islands	855	951	—	110	-12	11	—	-17
Other Western Europe	536	546	500	37	9	2	0	-13
Switzerland	194	187	—	12	13	-4	—	-27
EASTERN EUROPE	308	222	300	40	-36	-28	50	52
Poland	46	49	—	31	-54	6	—	943
Yugoslavia	74	88	—	1	-43	-41	—	-89
Romania	82	76	—	3	-61	-8	—	-72
Former USSR	1,758	2,691	1,900	67	-42	53	-30	-79
ASIA	16,094	17,782	17,700	1,504	-11	10	-1	1
West Asia (Mideast)	1,430	1,770	2,000	149	-28	24	11	37
Turkey	224	344	—	12	-14	54	—	32
Iraq	0	0	0	0	-100	0	0	0
Israel, incl. Gaza & W. Bank	287	348	—	12	1	20	—	-52
Saudi Arabia	536	549	500	40	7	2	0	34
South Asia	375	536	—	111	-48	43	—	182
Bangladesh	67	123	—	2	-44	83	—	160
India	84	117	—	40	-19	24	—	303
Pakistan	144	228	200	57	-63	57	0	104
China	668	691	400	39	-27	3	-43	-60
Japan	7,736	8,383	8,100	655	-5	8	-4	-7
Southeast Asia	1,239	1,470	—	129	5	19	—	-9
Indonesia	279	353	—	20	1	27	—	-44
Philippines	373	443	500	37	6	19	25	22
Other East Asia	4,846	4,934	5,100	421	-11	6	4	6
Taiwan	1,739	1,918	1,900	155	-4	10	0	6
Korea, Rep.	2,159	2,200	2,300	207	-20	2	5	13
Hong Kong	745	817	900	59	9	10	13	-13
AFRICA	1,882	2,304	2,500	237	-8	22	9	59
North Africa	1,386	1,412	1,600	135	-9	2	14	12
Morocco	129	158	—	26	-21	21	—	163
Algeria	477	478	500	40	-3	0	0	37
Egypt	892	709	600	53	-9	2	-14	-27
Sub-Saharan	496	892	800	102	2	80	-11	260
Nigeria	44	31	—	10	38	-30	—	85
Rep. S. Africa	74	328	—	50	-9	345	—	1,131
LATIN AMERICA & CARIBBEAN	5,499	6,438	6,700	530	7	17	5	11
Brazil	271	143	100	18	158	-47	0	181
Caribbean Islands	1,010	970	—	75	0	-4	—	-5
Central America	498	587	—	51	8	19	—	35
Colombia	124	142	—	18	-16	14	—	7
Mexico	2,885	3,678	4,100	296	8	27	11	6
Peru	150	179	—	10	-20	19	—	-48
Venezuela	307	394	300	36	-11	28	-25	37
CANADA	4,409	4,812	4,800	391	19	9	0	7
OCEANIA	349	428	400	32	10	23	0	40
TOTAL	37,809	42,417	42,500	3,675	-8	13	0	0
Developed countries	20,106	21,969	22,300	2,010	2	9	1	4
Developing countries	16,831	19,756	—	1,626	-14	17	—	0
Other countries	672	693	—	39	-26	3	—	-60

* Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1992 began Oct. 1, 1991 & ended Sept. 30, 1992. F = forecast. — = not available.
 Note: Adjusted for transshipments through Canada.

Information contact: Stephen MacDonald (202) 219-0822.

Farm Income

Table 29.—Farm Income Statistics

	Calendar year										
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 F	1993 F
	\$ billion										
1. Farm receipts	141.9	147.7	150.1	140.0	148.5	158.2	189.2	177.1	174.8	175	170 to 183
Crops (incl. net CCC loans)	67.2	69.9	74.3	63.7	65.9	71.7	76.9	80.0	80.5	83	82 to 87
Livestock	69.6	72.9	69.8	71.6	76.0	79.4	84.1	89.9	86.7	85	84 to 88
Farm related 1/	5.1	4.9	6.0	5.7	6.6	7.1	8.2	7.2	7.6	7	6 to 9
2. Direct Government payments	9.3	8.4	7.7	11.8	16.7	14.5	10.9	9.3	8.2	9	8 to 12
Cash payments	4.1	4.0	7.6	8.1	6.6	7.1	9.1	8.4	8.2	9	8 to 12
Value of PIK commodities	5.2	4.5	0.1	3.7	10.1	7.4	1.7	0.9	0.0	0	0 to 1
3. Gross cash income (1+2) 2/	151.1	156.1	157.9	152.8	165.1	171.7	180.2	186.4	183.2	184	183 to 191
4. Nonmoney income 3/	13.8	5.9	5.6	5.5	5.6	6.1	6.2	6.1	6.9	6	5 to 7
5. Value of inventory change	-10.9	6.0	-2.3	-2.2	-2.3	-3.4	4.8	3.5	0.4	4	-3 to 1
6. Total gross farm income (3+4+5)	153.9	168.0	161.2	156.1	168.5	175.4	191.1	196.0	189.5	195	189 to 197
7. Cash expenses 4/	112.8	118.7	110.7	105.0	109.4	114.6	121.2	125.2	125.2	126	123 to 129
8. Total expenses	139.6	141.9	132.4	125.1	128.8	134.3	141.2	145.1	144.9	145	143 to 149
9. Net cash income (3-7)	38.4	37.4	47.1	47.8	55.8	58.1	58.9	61.3	64.0	59	58 to 64
10. Net farm income (6-8)	14.2	26.1	28.8	31.0	39.7	41.1	49.9	51.0	44.6	50	43 to 49
Dollared (1987\$)	16.3	28.7	30.5	32.0	39.7	39.5	46.0	45.1	37.9	41	35 to 40

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, & farm household expenses. Total may not add because of rounding. F = forecast.

Information contact: Robert McElroy (202) 219-0800.

Table 30.—Balance Sheet of the U.S. Farming Sector

	Calendar year 1/										
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992F	1993 F
	\$ billion										
Assets											
Real estate	753.4	661.8	586.2	542.3	578.9	595.5	615.5	627.5	623.4	623	620 to 630
Non-real estate	189.8	195.2	186.5	182.1	193.7	205.4	213.4	219.0	218.5	223	218 to 228
Livestock & poultry	49.5	49.5	46.3	47.8	58.0	62.2	66.2	70.9	68.4	72	71 to 75
Machinery & motor vehicles	85.8	85.0	82.9	81.5	80.0	81.0	84.5	84.3	83.7	83	81 to 85
Crops stored 2/	23.6	26.1	22.9	16.3	17.5	23.3	23.4	22.8	23.6	23	21 to 25
Purchased inputs	—	2.0	1.2	2.1	3.2	3.5	2.6	2.8	2.5	3	2 to 4
Financial assets	30.9	32.6	33.3	34.5	35.1	35.4	36.8	38.3	40.3	42	41 to 45
Total farm assets	943.2	857.0	772.7	724.4	772.6	800.9	828.9	846.5	842.4	846	845 to 856
Liabilities											
Real estate debt 3/	103.2	106.7	100.1	90.4	82.4	77.6	75.4	73.7	74.4	75	73 to 77
Non-real estate debt 4/	87.9	87.1	77.5	68.6	62.0	61.7	61.8	63.1	64.3	65	64 to 68
Total farm debt	191.1	193.8	177.6	157.0	144.4	139.4	137.2	136.8	138.8	140	138 to 144
Total farm equity	752.2	663.3	595.1	567.5	628.2	661.6	691.8	709.8	703.1	707	705 to 715
	Percent										
Selected ratios											
Debt-to-assets	20.3	22.6	23.0	21.7	18.7	17.4	16.6	16.2	16.5	17	16 to 17
Debt-to-equity	25.5	29.2	29.8	27.7	23.0	21.1	19.8	19.3	19.7	20	19 to 21
Debt-to-net cash income	498	518	377	328	259	240	233	223	239.5	2300	2,200 to 2,400

1/ As of Dec. 31. 2/ Non-COC crops held on farms plus value above loan rates for crops held under COC. 3/ Excludes debt on operator dwellings, but includes COC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson or Jim Ryan (202) 219-0798.

Table 31.—Cash Receipts From Farm Marketings, by State

Region & State	Livestock & products				Crops 1/				Total 1/			
	1991	1992	Dec 1992	Jan 1993	1991	1992	Dec 1992	Jan 1993	1991	1992	Dec 1992	Jan 1993
	\$ million 2/											
NORTH ATLANTIC												
Maine	252	244	22	27	192	195	18	30	445	439	39	57
New Hampshire	63	63	5	6	80	76	8	5	143	139	11	11
Vermont	368	400	31	32	66	66	4	3	433	466	35	35
Massachusetts	121	121	10	11	355	342	34	19	476	463	44	30
Rhode Island	13	13	1	1	68	58	8	3	71	71	9	4
Connecticut	209	201	21	23	255	240	15	37	463	441	36	60
New York	1,782	1,865	156	143	1,087	1,077	101	58	2,868	2,963	257	202
New Jersey	197	198	17	17	464	476	30	19	660	673	47	38
Pennsylvania	2,470	2,549	204	198	1,033	1,050	101	108	3,503	3,599	305	308
NORTH CENTRAL												
Ohio	1,681	1,608	145	119	2,212	2,310	230	273	3,893	3,917	375	392
Indiana	1,893	1,731	182	158	2,582	2,696	284	417	4,475	4,428	446	575
Illinois	2,344	2,221	223	158	5,185	5,524	565	972	7,509	7,745	788	1,130
Michigan	1,288	1,291	116	123	1,793	1,947	192	184	3,081	3,239	308	307
Wisconsin	4,215	4,434	375	323	1,234	1,226	123	109	5,449	5,660	498	432
Minnesota	3,577	3,519	323	251	3,359	3,464	450	415	6,936	6,983	773	668
Iowa	5,721	5,350	531	508	4,458	4,843	558	730	10,179	10,192	1,088	1,238
Missouri	2,203	2,109	185	185	1,858	1,959	239	280	3,881	4,068	424	485
North Dakota	899	885	70	81	1,857	2,368	280	237	2,556	3,053	350	318
South Dakota	2,176	2,068	198	202	1,088	1,243	122	105	3,264	3,312	319	307
Nebraska	5,934	5,786	632	361	2,888	3,085	447	516	8,821	8,872	1,079	877
Kansas	4,802	4,954	405	310	2,133	2,424	223	243	6,935	7,379	628	553
SOUTHERN												
Delaware	438	453	35	40	181	175	10	8	620	628	45	48
Maryland	779	831	70	66	554	573	41	28	1,332	1,404	111	95
Virginia	1,363	1,433	116	92	732	728	72	45	2,095	2,161	188	138
West Virginia	253	252	19	18	77	79	9	7	330	331	27	25
North Carolina	2,608	2,835	257	193	2,316	2,318	124	85	4,924	4,954	381	278
South Carolina	549	519	41	41	877	827	39	31	1,225	1,147	80	73
Georgia	2,153	2,122	192	176	1,825	1,795	121	78	3,978	3,918	312	254
Florida	1,172	1,139	105	95	4,969	4,678	395	616	6,141	5,816	500	711
Kentucky	1,704	1,652	120	121	1,475	1,619	504	414	3,179	3,271	624	534
Tennessee	1,045	1,028	78	107	933	1,082	301	146	1,978	2,090	379	253
Alabama	2,219	2,111	148	162	759	790	75	51	2,978	2,901	223	213
Mississippi	1,275	1,318	110	107	1,147	1,265	244	152	2,422	2,583	354	259
Arkansas	2,680	2,621	234	213	1,831	1,945	289	202	4,311	4,565	503	415
Louisiana	621	620	48	42	1,172	1,281	240	142	1,793	1,911	288	184
Oklahoma	2,767	2,668	183	181	1,040	1,144	80	78	3,808	3,812	264	238
Texas	7,914	7,870	869	579	4,212	4,159	454	383	12,126	12,028	1,323	962
WESTERN												
Montana	790	766	101	67	741	830	80	81	1,531	1,596	181	148
Idaho	1,073	1,109	94	93	1,543	1,620	212	121	2,616	2,730	306	214
Wyoming	643	620	44	37	170	167	28	9	613	787	72	46
Colorado	2,664	2,694	253	203	1,097	1,086	131	114	3,761	3,779	384	317
New Mexico	1,019	968	78	92	482	469	48	28	1,501	1,437	124	119
Arizona	786	823	72	104	1,104	940	93	94	1,890	1,764	165	198
Utah	553	583	56	43	178	192	19	17	731	775	75	59
Nevada	187	187	13	16	89	74	8	7	276	280	21	23
Washington	1,290	1,364	123	105	2,657	2,932	260	221	3,947	4,296	383	326
Oregon	824	826	71	68	1,631	1,697	131	104	2,454	2,524	202	171
California	5,272	5,258	614	427	12,815	12,838	1,121	720	17,887	18,095	1,735	1,148
Alaska	6	6	1	0	20	20	2	1	27	27	3	2
Hawaii	91	91	7	7	506	495	42	41	597	586	49	48
UNITED STATES	86,746	85,996	7,984	6,712	80,550	84,280	9,184	8,789	167,292	170,276	17,167	15,500

1/ Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 219-0806. To receive current monthly cash receipts via mail or E-Mail contact Linda Farmer at (202) 219-0804.

Table 32.—Cash Receipts From Farming

	Annual						1992					1993
	1987	1988	1989	1990	1991	1992 P	Jan	Sep	Oct	Nov	Dec	Jan
	\$ million											
Farm marketings & CCC loans*	141.844	151.102	161.027	169.920	167.292	170.275	15.204	16,249	19,492	17,150	17,167	15,503
Livestock & products	75.993	79,438	84,148	89,921	86,745	85,998	7,029	7,223	7,738	7,721	7,984	6,713
Meat animals	44,478	46,492	46,857	51,911	51,093	48,988	4,069	4,141	4,538	4,431	4,806	3,792
Dairy products	17,727	17,841	19,396	20,210	18,114	19,709	1,806	1,845	1,666	1,691	1,631	1,517
Poultry & eggs	11,515	12,868	15,372	15,243	15,063	14,801	1,160	1,217	1,360	1,389	1,379	1,194
Other	2,274	2,437	2,524	2,557	2,478	2,497	193	220	174	311	168	210
Crops	65,851	71,663	76,879	79,998	80,547	84,280	8,176	9,026	11,753	9,429	9,184	8,790
Food grains	5,780	7,474	8,247	7,512	6,823	8,946	684	945	1,027	733	648	734
Feed crops	14,635	14,298	17,054	18,690	19,012	20,352	2,623	2,096	2,902	1,961	2,532	3,004
Cotton (lint & seed)	4,189	4,548	5,033	5,489	5,589	5,404	805	185	1,000	1,372	1,289	689
Tobacco	1,818	2,083	2,415	2,741	2,888	2,967	453	653	217	243	653	495
Oil-bearing crops	11,283	13,500	11,868	12,294	12,547	13,065	1,536	1,738	3,103	1,430	1,122	1,869
Vegetables & melons	9,898	9,788	11,534	11,455	11,293	11,235	726	1,236	1,171	610	581	809
Fruits & tree nuts	8,065	9,202	9,299	9,534	9,882	9,885	561	1,120	1,251	1,352	1,013	870
Other	10,176	10,772	11,435	12,284	12,514	12,420	788	1,052	1,082	1,728	1,365	520
Government payments	18,747	14,480	10,887	9,298	8,214	9,169	75	517	1,813	303	1,164	222
Total	158,591	165,582	171,914	179,218	175,508	179,338	15,279	16,766	21,305	17,453	18,331	15,725

* Sales of farm products include receipts from commodities placed under nonrecourse CCC loans. Plus additional gains realized on redemptions during the period. P = preliminary.

Information contact: Roger Strickland (202) 219-0806. To receive current monthly cash receipts via mail or E-Mail contact Linda Farmer at (202) 219-0804.

Table 33.—Farm Production Expenses

	Calendar year									
	1984	1985	1986	1987	1988	1989	1990	1991	1992F	1993F
	\$ million									
Feed purchased	19,383	16,949	17,472	17,463	20,393	21,002	20,706	19,800	20,000	18,000 to 22,000
Livestock & poultry purchased	9,487	9,184	9,758	11,842	12,764	13,138	14,832	14,358	14,000	12,000 to 16,000
Seed purchased	3,386	3,128	3,188	3,259	3,359	3,558	3,576	3,976	4,000	3,000 to 5,000
Farm-origin inputs	32,256	29,261	30,418	32,564	36,516	37,698	39,114	38,133	38,000	36,000 to 40,000
Fertilizer & lime	8,361	7,513	6,820	6,453	6,947	7,249	7,135	7,419	7,000	6,000 to 9,000
Fuels & oils	7,296	6,436	5,310	4,957	4,903	4,798	5,730	5,472	5,000	4,000 to 7,000
Electricity	2,060	1,878	1,795	2,156	2,289	2,543	2,480	2,483	2,000	1,000 to 3,000
Pesticides	4,688	4,334	4,324	4,512	4,577	5,437	5,730	6,313	6,000	8,000 to 8,000
Manufactured inputs	22,404	20,160	18,249	18,077	18,716	20,027	21,063	21,697	21,000	20,000 to 24,000
Short-term interest	10,396	8,735	7,367	8,767	9,797	6,910	6,911	6,615	6,000	5,000 to 8,000
Real estate interest 1/	10,733	9,878	9,131	8,187	7,885	7,761	7,607	7,319	7,000	6,000 to 8,000
Total interest charges	21,129	18,613	16,498	14,954	14,682	14,691	14,518	13,934	14,000	12,000 to 16,000
Repair & maintenance 1/	6,416	6,370	6,428	6,760	6,858	7,340	7,347	7,234	7,000	7,000 to 9,000
Contract & hired labor	9,427	10,008	9,484	9,975	10,441	11,110	12,541	12,595	13,000	11,000 to 16,000
Machine hire & custom work	2,566	2,354	2,099	2,105	2,354	2,682	2,633	2,722	3,000	2,000 to 4,000
Marketing, storage, & transportation	4,012	4,127	3,652	4,078	3,450	4,080	4,046	4,532	5,000	4,000 to 6,000
Misc. operating expenses 1/ 2/	10,331	10,010	9,759	11,171	11,791	12,522	12,364	13,256	13,000	11,000 to 15,000
Other operating expenses	32,751	32,868	31,420	34,089	34,894	37,734	38,931	40,339	41,000	39,000 to 44,000
Capital consumption 1/	20,847	19,299	17,788	17,092	17,344	17,780	17,494	17,352	17,000	16,000 to 20,000
Taxes 1/	4,337	4,542	4,612	4,853	4,848	5,127	5,623	5,980	6,000	5,000 to 7,000
Net rent to nonoperator landlord	8,150	7,690	6,099	7,124	7,290	8,187	8,334	7,464	8,000	7,000 to 9,000
Other overhead expenses	33,334	31,531	28,499	29,069	29,482	31,094	31,451	30,796	31,000	30,000 to 33,000
Total production expenses	141,873	132,433	125,084	128,772	134,285	141,244	145,077	144,869	145,000	143,000 to 149,000

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses include other livestock purchases, dairy assessments & feeding fees paid by nonoperators. Totals may not add because of rounding. F = forecast.

Information contacts: Chris McGath (202) 219-0804, Robert McElroy (202) 219-0800.

Table 34.—CCC Net Outlays by Commodity & Function

COMMODITY/PROGRAM	Fiscal year									
	1985	1986	1987	1988	1989	1990	1991	1992	1993 E	1994 E
	\$ million									
Feed grains										
Corn	4,403	10,524	12,346	8,227	2,863	2,450	2,387	2,105	5,250	3,180
Grain sorghum	463	1,185	1,203	764	487	361	243	190	423	274
Barley	336	471	394	57	45	-93	71	174	185	103
Oats	2	26	17	-2	1	-5	12	32	17	6
Corn & oat products	7	5	7	7	8	8	9	9	8	10
Total feed grains	5,211	12,211	13,967	9,053	3,384	2,721	2,722	2,510	5,883	3,573
Wheat	4,691	3,440	2,836	678	53	806	2,958	1,719	2,274	1,847
Rice	990	947	906	128	631	667	867	715	889	741
Upland cotton	1,553	2,142	1,786	666	1,461	-79	382	1,443	2,436	2,317
Tobacco	455	253	-346	-453	-367	-307	-143	29	-2	-13
Dairy	2,085	2,337	1,166	1,295	679	505	839	232	145	230
Soybeans	711	1,597	-476	-1,676	-86	5	40	-29	41	-40
Peanuts	12	32	8	7	13	1	48	41	33	1
Sugar	184	214	-65	-246	-25	15	-20	-19	-28	-30
Honey	81	89	73	100	42	47	19	17	17	12
Wool	109	123	152	1/ 5	93	104	172	191	183	191
Operating expense 3/	346	457	535	614	620	618	625	6	7	6
Interest expenditure	1,435	1,411	1,219	425	98	632	745	532	194	154
Export programs 4/	134	102	276	200	-102	-34	733	1,455	2,698	1,853
1989/92 Disaster/Tree/										
livestock assistance	0	0	0	0	3,919	2/ 161	121	1,054	1,226	0
Other	-314	486	371	1,665	110	609	2	-158	1,094	1,330
Total	17,683	25,841	22,408	12,461	10,523	6,471	10,110	9,738	17,090	12,255
FUNCTION										
Price-support loans (net)	6,272	13,828	12,199	4,579	-926	-399	418	584	2,183	785
Direct payments 5/										
Deficiency	6,302	6,166	4,833	3,971	5,798	4,178	6,224	5,491	8,813	7,009
Diversification	1,525	64	382	8	-1	0	0	0	0	0
Dairy termination	0	489	587	260	168	189	96	2	0	0
Loan Deficiency	0	27	60	60	42	3	21	214	390	438
Other	0	0	0	0	0	0	0	140	200	175
Disaster	0	0	0	6	4	0	0	0	0	0
Total direct payments	7,827	6,748	5,862	4,245	6,011	4,370	6,341	6,847	9,403	7,622
1988-92 crop disaster	0	0	0	0	3,386	2/ 5	6	960	1,137	0
Emergency livestock/tree/										
forage assistance	0	0	0	31	533	156	115	94	89	0
Purchases (net)	1,331	1,670	-479	-1,131	116	-48	646	321	485	298
Producer storage										
payments	329	485	832	658	174	185	1	14	19	67
Processing, storage,										
& transportation	657	1,013	1,659	1,113	659	317	394	185	135	128
Operating expense 3/	346	457	535	614	620	618	625	6	7	6
Interest expenditure	1,435	1,411	1,219	425	98	632	745	532	194	154
Export programs 4/	134	102	276	200	-102	-34	733	1,455	2,698	1,853
Other	-648	329	305	1,727	-48	669	86	-260	740	1,342
Total	17,683	25,841	22,408	12,461	10,523	6,471	10,110	9,738	17,090	12,255

1/ Fiscal 1988 wool & mohair program outlays were \$130,635,000 but include a one-time advance appropriation of \$126,108,000, which was recorded as a wool program receipt by Treasury. 2/ Approximately \$1.5 billion in benefits to farmers under the Disaster Assistance Act of 1989 were paid in generic certificates & were not recorded directly as disaster assistance outlays. 3/ Does not include CCC Transfers to General Sales Manager. 4/ Includes Export Guarantee Program, Direct Export Credit Program, CCC Transfers to the General Sales Manager, Market Promotion Program, starting in fiscal 1991 & starting in fiscal 1992 Export Guarantee Program - Credit Reform, Export Enhancement Program, & Dairy Export Incentive Program. 5/ Includes cash payments only. Excludes payment-in-kind in fiscal 83-85 & generic certificates in fiscal 86-89. E = Estimated in the fiscal 1994 Budget which was released April 8, 1993 based on November, 1992 supply & demand estimates. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 720-5148.

Food Expenditures

Table 35.—Food Expenditures

	Annual			1993			1993 year-to-date		
	1990	1991	1992	Jan	Feb P	Mar P	Jan	Feb P	Mar P
\$ billion									
Sales 1/									
Off-premise use 2/	298.1	310.9	319.0	26.1	24.4	26.5	26.1	50.5	77.1
Meals & snacks 3/	225.3	232.6	242.1	19.1	18.4	20.4	19.1	37.6	58.0
1991 \$ billion									
Sales 1/									
Off-premise use 2/	308.3	313.2	318.9	25.7	24.0	26.0	25.7	49.7	75.7
Meals & snacks 3/	237.6	237.3	242.0	18.9	18.2	20.2	18.9	37.2	57.4
Percent change from year earlier (\$ bil.)									
Sales 1/									
Off-premise use 2/	8.9	4.3	2.6	2.1	-0.7	3.7	2.1	0.8	1.8
Meals & snacks 3/	7.2	3.3	4.4	2.6	-2.1	1.5	2.6	0.3	0.7
Percent change from year earlier (1992 \$ bil.)									
Sales 1/									
Off-premise use 2/	2.3	1.6	1.8	0.1	-2.5	2.3	0.1	-1.1	0.0
Meals & snacks 3/	2.4	-0.1	2.0	1.0	-3.7	-0.1	1.0	-1.4	-0.3

1/ Food only (excludes alcoholic beverages). Not seasonally adjusted. 2/ Excludes donations & home production. 3/ Excludes donations, child nutrition subsidies, & meals furnished to employees, patients, & inmates. P = preliminary.

NOTE: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food not alcoholic beverages & pet food which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced & consumed on farms & food furnished to employees; (4) this series includes all sales of meals & snacks. PCE includes only purchases using personal funds, excluding business travel & entertainment. For a more complete discussion of the differences, see "Developing an Integrated Information System for the Food Sector," Agr.-Econ. Rpt. No. 575, Aug 1987.

Information contact: Aiden Manchester (202) 219-0880.

Transportation

Table 36.—Rail Rates; Grain & Fruit-Vegetable Shipments

	Annual			1992					1993	
	1990	1991	1992	Feb	Sept	Oct	Nov	Dec	Jan	Feb
Rail freight rate index 1/ (Dec. 1984=100)										
All products	107.5	109.3	110.0	109.9	109.9	110.1	110.2 P	110.3 P	110.4 P	110.4 P
Farm products	110.4	111.4	111.1	111.2	110.3	112.4	112.4 P	113.7 P	112.9 P	113.0 P
Grain	110.1	111.2	111.4	111.6	110.3	113.7	113.1 P	114.8 P	113.8 P	113.9 P
Food products	105.4	108.1	108.7	109.0	108.1	108.1	108.1 P	109.0 P	108.7 P	108.7 P
Grain shipments										
Rail carloadings (1,000 cars) 2/	27.6	26.6	27.7	30.0	25.8 P	30.8 P	31.5 P	29.7 P	29.6 P	30.7 P
Barge shipments (mil. ton) 3/	3.8	3.3	3.4	2.0	3.2	2.6	3.3	2.9	2.0	1.7
Fresh fruit & vegetable shipments 4/ 5/										
Piggy back (mil. cwt)	1.8	1.5	1.6	1.4	1.5	1.3	1.4	1.4	1.4	1.4
Rail (mil. cwt)	2.3	2.1	2.6	2.7	1.8	2.0	2.4	3.0	2.5	2.2
Truck (mil. cwt)	41.5	41.9	44.0	41.5	37.5	42.2	39.4	41.1	40.8	39.1
Cost of operating trucks										
hauling produce 4/										
Fleet operation (cts./mile)	130.5	126.5	124.1	122.7	125.1	125.0	124.8	125.1	127.0	127.0

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Shipments on Illinois & Mississippi waterways, U.S. Corps of Engineers. 4/ Agricultural Marketing Service, USDA. 5/ Preliminary data for 1993. P = preliminary. — = not available.

Information contact: T.Q. Hutchinson (202) 219-0840.

Indicators of Farm Productivity

Table 37.—Indexes of Farm Production, Input Use & Productivity ^{1/}

	1982	1983	1984	1985	1986	1987	1988	1989	1990 2/	1991 2/
	1977=100									
Farm output	116 ^a	96	112	118	111	110	102	114	119	120
All livestock products 3/	107	109	107	110	110	113	116	116	118	119
Meat animals	101	104	101	102	100	102	105	105	104	104
Dairy products	110	114	110	117	116	118	118	117	120	121
Poultry & eggs	119	120	123	128	133	144	148	153	162	168
All crops 4/	117	88	111	118	109	108	92	107	114	111
Feed grains	122	67	116	134	123	106	73	108	112	106
Hay & forage	109	100	107	106	106	102	89	101	102	103
Food grains	138	117	129	121	107	107	98	107	136	104
Sugar crops	96	93	95	97	106	111	105	105	107	112
Cotton	85	55	81	94	89	103	107	86	109	122
Tobacco	104	75	80	81	83	62	72	71	84	87
Oil crops	121	91	106	117	110	108	89	106	107	114
Cropland used for crops	101	88	99	98	94	88	87	90	90	89
Crop production per acre	116	100	112	120	116	123	106	119	127	125
Farm input 5/	98	96	95	91	89	89	87	87	88	—
Farm real estate	102	101	99	97	96	95	94	93	93	—
Mechanical power & machinery	89	86	85	80	77	74	74	73	71	—
Agricultural chemicals	118	102	120	115	109	111	112	119	122	—
Feed, seed, & livestock purchases	107	103	103	102	109	116	111	113	113	—
Farm output per unit of input	119	100	118	129	124	124	116	130	135	—
Output per hour of labor										
Farm 6/	125	99	121	139	139	142	135	147	142	—
Nonfarm 7/	99	102	105	106	108	109	111	112	111	—

1/ For historical data & indexes, see Economic Indicators of the Farm Sector: Production & Efficiency Statistics, 1986, ECIFS 5-6. 2/ Preliminary indexes for 1991 based on Crop Production; 1991 Summary, released in January 1992, & unpublished data from the Agricultural Statistics Board, NASS. 3/ Gross livestock production includes minor livestock products not included in the separate groups shown. It cannot be added to gross crop production to compute farm output. 4/ Gross crop production includes some miscellaneous crops not in the separate groups shown. It cannot be added to gross livestock production to compute farm output. 5/ Includes other items not included in the separate groups shown. 6/ Economic Research Service. 7/ Bureau of Labor Statistics. — = not available.

Information contact: Eldon Ball (202) 219-0432.

Food Supply & Use

Table 38.—Per Capita Consumption of Major Food Commodities ^{1/}

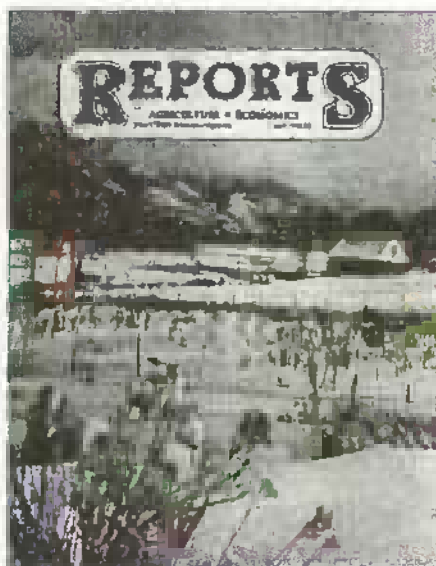
Commodity	1984	1985	1986	1987	1988	1989	1990	1991 ^{2/}
Pounds								
Red meats ^{3/4/5/}	123.7	124.9	122.2	117.4	119.5	115.9	112.4	111.9
Beef	73.9	74.8	74.4	69.6	68.6	65.4	63.9	63.1
Veal	1.5	1.5	1.6	1.3	1.1	1.0	0.9	0.8
Lamb & mutton	1.1	1.1	1.0	1.0	1.0	1.1	1.1	1.1
Pork	47.2	47.7	45.2	45.6	48.8	48.4	48.4	46.9
Poultry ^{3/4/5/}	43.7	45.2	47.1	50.7	51.7	53.6	55.9	58.0
Chicken	35.0	36.1	37.0	39.1	39.3	40.5	42.1	43.9
Turkey	8.7	9.1	10.2	11.6	12.4	13.1	13.8	14.1
Fish & shellfish ^{4/}	14.1	15.0	15.4	16.1	15.1	15.6	15.0	14.8
Eggs ^{5/}	33.0	32.4	32.2	32.2	31.2	29.9	28.6	29.4
Dairy products								
Cheese (excluding cottage) ^{3/6/}	21.5	22.5	23.1	24.1	23.7	23.8	24.7	25.2
American	11.9	12.2	12.1	12.4	11.5	11.0	11.2	11.2
Italian	5.8	6.5	7.0	7.6	8.1	8.5	9.0	9.4
Other cheese ^{7/}	3.9	3.9	4.0	4.1	4.1	4.3	4.6	4.6
Cottage cheese	4.1	4.1	4.1	3.9	3.9	3.6	3.4	3.2
Beverage milks ^{3/}	227.3	229.7	228.6	228.5	222.4	224.3	221.7	221.5
Fluid whole milk ^{8/}	126.9	123.4	116.5	111.9	105.7	97.6	90.4	87.5
Fluid lowfat milk ^{9/}	88.9	93.7	98.6	100.6	100.5	106.5	108.4	110.1
Fluid skim milk	11.8	12.6	13.5	14.0	18.1	20.2	22.9	23.8
Fluid cream products ^{10/}	8.3	6.7	7.0	7.1	7.1	7.3	7.1	7.0
Yogurt (excluding frozen)	3.7	4.1	4.4	4.4	4.7	4.3	4.1	4.3
Ice cream	18.2	18.1	18.4	18.4	17.3	16.1	15.8	16.4
Ice milk	7.0	6.9	7.2	7.4	8.0	8.4	7.7	7.3
Frozen yogurt	--	--	--	--	--	2.0	2.8	3.5
All dairy products, milk equivalent, milkfat basis ^{11/}	582.0	593.8	591.6	601.3	582.9	565.2	570.8	564.7
Fats & oils — Total fat content	158.9	64.3	64.4	62.9	63.0	61.1	62.7	63.8
Butter & margarine (product weight)	15.3	15.7	16.0	15.2	14.8	14.6	15.3	14.8
Shortening	21.3	22.9	22.1	21.4	21.5	21.5	22.2	22.1
Lard & edible tallow (direct use)	3.8	3.7	3.5	2.7	2.6	2.7	3.0	3.1
Salad & cooking oils	19.9	23.5	24.2	25.4	25.8	24.0	24.2	25.2
Fresh fruits ^{12/}	88.9	88.8	93.1	97.5	97.4	98.8	92.6	90.6
Canned fruit ^{13/}	12.3	12.7	12.9	13.6	13.2	13.3	13.4	12.3
Dried fruit	2.6	2.9	2.9	2.7	3.0	3.3	3.2	3.6
Frozen fruit	3.0	3.3	3.6	3.9	3.8	4.6	4.3	3.9
Frozen citrus juices ^{14/}	35.7	40.5	43.2	40.2	40.1	34.3	27.2	--
Vegetables ^{12/}								
Fresh	100.6	100.7	99.3	105.8	109.7	112.9	110.9	106.0
Canning	90.9	87.8	87.9	87.6	83.5	90.7	93.4	94.3
Freezing	17.6	17.1	15.8	16.8	18.3	17.8	18.3	19.3
Potatoes, all ^{12/}	121.9	122.5	125.8	125.8	122.3	127.4	127.8	130.6
Sweetpotatoes ^{12/}	5.4	5.8	4.8	4.8	4.5	4.5	5.0	4.4
Peanuts (shelled)	6.0	6.3	6.4	6.4	6.9	7.0	6.0	6.4
Tree nuts (shelled)	2.3	2.3	2.3	2.2	2.3	2.3	2.5	2.5
Flour & cereal products ^{15/}	150.4	157.5	163.7	172.5	174.3	175.3	183.0	184.6
Wheat flour	119.2	124.7	125.7	129.9	130.0	129.2	135.7	135.9
Rice (milled basis)	8.5	9.0	11.6	14.0	14.3	15.2	16.2	16.8
Caloric sweeteners ^{16/}	127.0	131.3	129.6	133.7	135.1	137.3	140.7	141.7
Coffee (green bean equiv.)	10.2	10.5	10.5	10.2	9.8	10.1	10.3	10.5
Cocoa (chocolate liquor equiv.)	3.4	3.7	3.8	3.8	3.8	4.0	4.3	4.6

^{1/} In pounds, retail weight unless otherwise stated. Consumption normally represents total supply minus exports, nonfood use, & ending stocks. Calendar-year data except fresh citrus fruits, peanuts, tree nuts, & rice, which are on crop-year basis. ^{2/} Preliminary.
^{3/} Total may not add due to rounding. ^{4/} Boneless, trimmed weight. Chicken series revised to exclude amount of ready-to-cook chicken going to pet food as well as some water leakage that occurs when chicken is cut up before packaging. ^{5/} Excludes shipments to the U.S. territories. ^{6/} Natural equivalent of cheese & cheese & other dairy products. Includes miscellaneous cheese not shown separately.
^{7/} Includes Swiss, Brick, Munster, cream, Neuchâtel, Blue, Gorgonzola, Edam, & Gouda. ^{8/} Plain & flavored. ^{9/} Plain & flavored & buttermilk. ^{10/} Heavy cream, light cream, half & half, & sour cream & dip. ^{11/} Includes condensed & evaporated milk & dry milk products.
^{12/} Farm weight. ^{13/} Excludes pineapple & berries. ^{14/} Single strength equivalent. ^{15/} Includes rye, corn, oat, & barley products.
 Excludes quantities used in alcoholic beverages, corn sweeteners, & fuel. ^{16/} Dry weight equivalent. — not available.

Information contact: Judy Jones Putnam (202) 219-0870.

Stay Current On

- Agricultural and economics statistics and analysis.
- Commodity analysis.
- Food consumption.
- Foreign trade.
- Biotechnology.
- Rural development.
- Banking.
- Land use.



Reports catalog lists monographs, periodicals, videos, and data products available from USDA's economics agencies. For a **free** subscription to this quarterly catalog, write to:

ERS-NASS

341 Victory Drive
Herndon, VA 22070

Or call toll free, 1-800-999-6779
(in the U.S. and Canada; other areas,
please call 703-834-0125)

ERS-NASS Video Tapes

ERS: Economic Research for American Agriculture

An historical account of the role of economic research in the success of American agriculture. 7/85.

16 1/2 minutes Order No. VT001 \$15.00

Today and Tomorrow

The U.S. Department of Agriculture's Outlook program analyzes the current situation for U.S. and world crops, and provides a forecast of future supplies and prices. "Today and Tomorrow" is an overview of the USDA Outlook program from its beginning in the 1920's, to the current comprehensive program of research and analysis. 3/86.

23 minutes Order No. VT002 \$15.00

The Need To Know

Begins with a futuristic "what if?" opening, and then proceeds to outline the history, significance, and contributions of agricultural statistics and USDA's National Agricultural Statistics Service. 6/88.

23 minutes Order No. VT003 \$15.00

Your Hometown

"Your Hometown" is an informative and entertaining look at small town rural America. Originally seen on public television stations nationwide, and narrated by James Whitmore, the program focuses on three rural communities

where citizens use innovative thinking and teamwork to revitalize their own towns. 2/88.

1 hour Order No. VT004 \$15.00

Alternative Agriculture: Growing Concerns

Can U.S. farmers produce at a profit while practicing low-input, sustainable agriculture (LISA)? "Growing Concerns" investigates the benefits and drawbacks of LISA. An excellent overview, this documentary was originally seen as a five-part series on national television. 1/89.

19 minutes Order No. VT005 \$15.00

Ethanol: Economic and Policy Tradeoffs

Ethanol can contribute to the national goals of energy security, a clean environment, and a healthy economy, but there are tradeoffs. 11/89.

25 minutes Order No. VT006 \$15.00

American Harvest

Farming in America is not what you think it is. That's the theme of this program which investigates farms, farming and rural America, and farm families. Visit a "lifestyle" farm in Virginia, a soybean/hog operation in Illinois, and a large California farm that grows just about everything. 11/91.

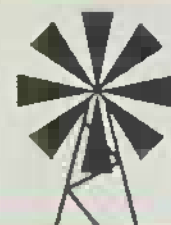
30 minutes Order No. VT007 \$15.00

*To order, call our order desk toll free,
1-800-999-6779
(8:30-5:00 ET in the U.S. and Canada).
Prices good through 12/92.*

A



History of



American Agriculture,

1776-1990



For an entertaining, informative summary of the highlights of agriculture in America, order your copy of this wall chart today. This 50" x 45" wall chart explodes with photographs, drawings, maps, and charts that depict significant events in the history of American agriculture. The time-line wall chart provides a decade-by-decade account of the economic and social trends, technologies, legislation, movements, and efforts that have shaped U.S. agriculture from pre-Colonial times to the present.

To order, call 1-800-999-6779 or send \$16.00 by check or money order to ERS-NASS, 341 Victory Drive, Herndon, VA 22070. Ask for POST11. For foreign orders, call 703/834-0125, or if ordering by mail, add 25% for shipping and handling.

United States
Department of Agriculture
1301 New York Avenue, NW
Washington, DC 20005-4789

OFFICIAL BUSINESS

Penalty for Private Use, \$300

FIRST CLASS
POSTAGE & FEES PAID
USDA
PERMIT NO. G-145

MOVING? To change your address, send this sheet with label intact, showing new address to: EMS Information, Rm 228, 1301 New York Ave., NW, Washington, DC 20005-4789

☒ **Want to Subscribe?** ☒ **Time to Renew?**

Subscribe to *Agricultural Outlook* today! If you already subscribe to this timely periodical, note that expiration information about your subscription appears on the top line of your mailing label. **The expiration information will appear in one of three formats:** 1-AGO-2 (this means you have TWO issues remaining in your subscription) or 940430 (expiration date is April 30, 1994) or APR94 (expiration date is April 1994). Disregard this notice if no renewal information appears. Call toll free, 1-800-999-6779, and tell us whether you want to subscribe or renew, or return this form to: ERS-NASS, 341 Victory Drive, Herndon, VA 22070.

Agricultural Outlook

- ☐ Yes! I want to **start** my subscription.
☐ Yes! I want to **renew** my subscription.

	1 Year	2 Years	3 Years
Domestic:	<input type="checkbox"/> \$35.00	<input type="checkbox"/> \$68.00	<input type="checkbox"/> \$101.00
Foreign:	<input type="checkbox"/> \$43.75	<input type="checkbox"/> \$85.00	<input type="checkbox"/> \$126.25

New subscribers:

Name: _____

Address: _____

City, State, Zip: _____

Daytime phone: (____) _____

Renewals:

ATTACH MAILING LABEL HERE

Payment method:

- ☐ Bill me.
☐ Enclosed is \$_____.

Use purchase orders, checks drawn on U.S. banks (and in U.S. funds), cashier's checks, or international money orders. **Make payable to ERS-NASS.** Please do not send cash.

Credit card orders: ☐ MasterCard ☐ Visa Total charges \$_____

Credit card
number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Card expiration
date:

--	--

Month/Year

For fastest service, call our toll-free order desk 1-800-999-6779, in the U.S. and Canada; other areas please call 703-834-0125, or FAX this page to 703-834-0110.